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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—5TH YEAR. SYDNEY: SATURDAY, NOVEMBER 2, 1918. No. 18.

THE HOSPITAL OF THE FUTURE IN AUSTRALIA.[1]

By Richard Arthur, M.D. (Edin.), M.L.A.,
Sydney.

The fetters of tradition lie heavy upon us. We believe things and do things because our fathers in their day believed and did them, not because they have any foundation in reason and common sense.

It is this which makes it so necessary that every belief, however entrenched, and every practical outcome of belief should be refused acceptance until it has withstood the fire of critical investigation.

We should take much and strenuous thought as to what we should eat or drink or with what we should be clothed, for many of the customs regarding these that have come down to us are both foolish and harmful. Again, the artificial caves we erect within which to shelter from the elements' rage ought not to be exempt from this scrutiny.

Our ancestors were in all probability creatures altogether of the open air. They took to the caves, not for shelter, but for concealment from and protection against their innumerable enemies.

But while by so doing they eluded their macroscopic foes, it is again very probable that they laid themselves open to the attack of microscopic enemies more deadly to the race than paleolithic or neolithic monsters.

As time went on man, in the colder countries at least, became more and more a slave to the cave life, and even arrived at a fear of the very air outside the cave. He felt safe within his habitation when all the apertures were closed and the atmosphere was warm and stuffy and odoriferous from the presence of human beings.

It followed naturally that when he emerged from this hot-house to the outer air he felt the change of temperature so keenly that he piled layer after layer of covering on his body to guard him against the shock of the cold. And thus he carried his cave about with him, for these clothes caused his body to be enveloped in the same hot, impure air as abounded in his dwelling.

Darwin relates how the natives in Patagonia sweated profusely when they stood naked before a fire in the open, round which the white men shivered in their thick clothes, and our Chidley used to walk the streets of Sydney on the coldest day of winter and there would be a glow of warmth on his skin.

In my young days in England the fear of pure air was a very obsession. In the summer windows might be opened during the day-time, but never at night. The so-called "night air" was regarded as a sort of miasma, which must be excluded at all hazards. It was sometimes conceded that healthy persons might have their bedroom window down an inch or two from the top, but even this passed as a practice with considerable risk attached to it.

In the sick-room the nearer an approach to sealing it up hermetically could be made, the better was it supposed to be.

I well remember how "night air" was regarded as of peculiar deadliness to the consumptives, and these unfortunate sufferers were robbed of any chance of life they might otherwise have had by being compelled to sleep in a sealed up room. Even only nine years ago, when I was the inmate of a private hospital in London, I had to threaten to get up and break the window before the nurse could be induced to leave it open at night-time.

It is true that for a long time scientists and pioneers in medicine had been pointing out the injurious effects of foul air, and attempts were being made to cope with the problem of vitiated air in dwellings.

The solution most in favour was to make the cubic capacity of the dwelling bigger.

There was much discussion as to the amount of cubic space that an individual was entitled to, and the amount demanded as essential has steadily increased.

To come now to my point, all that has been said is as applicable to hospitals as to dwelling-houses.

The builders of the old hospitals must have given no thought to the question of fresh air, or, rather, they must, in some cases, have taken pains to exclude it.

One of the oldest hospitals I saw thirty years ago was La Charité in Paris, and in it there were small windows which could not open, high up in the walls, and the beds were packed so closely together that there was not much space to pass between them. Some of the London and provincial hospitals of that date were not much better, either as regards the means of ventilation or the cubic space per patient. Since then much more thought and attention has been given to the designing of hospital buildings, and the pavilion, as contrasted with the block hospital, has become the standard design.

The merit of the pavilion is that cross ventilation is provided for, and the ward is better lighted and more cheerful.

But the pavilion design has augmented considerably the cost of hospital construction, and as the demand for cubic space per bed mounted up from 800 or 900 to 2,500 cubic feet, the expenditure on the buildings increased *pari passu*, until to-day a hospital built to modern requirements is one of the most expensive structures in the world.

This question of the increased cost of construction arising out of the demand for greater air space is a very serious one in Australia, where the authorities are continually faced by the need for providing hospital accommodation in a large number of centres of population. The ever-widening sphere of surgery, the growing opinion that severe illnesses, among the poorer classes at least, can be better treated in a hospital than in the home, and the many advantages gained by bringing patients from distant and isolated parts of the bush to the doctors and nurses, rather than by compelling the skilled medical attendants

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on October 25, 1918.

to undertake long and distracting journeys to the patients; all these factors make it inevitable that more and more hospital accommodation will be required in the immediate future.

The urgency of this matter has suggested the following questions to my mind: Has the last word been said about hospital construction? Must the hospital of the future conform to the lines as at present laid down? Must huge sums of money be sunk in palatial edifices of stone and brick, with ever larger and more lofty wards, to comply with the demand for increased air space?

I am prepared to answer all these questions in the negative, and to say that, in my opinion, a complete revolution in hospital construction is called for—in Australia, at any rate.

I believe that the central feature of the future hospital will not be a ward, but a verandah or balcony, with annexes.

To-day the most recently erected hospitals have verandahs which have become progressively wider, and from using these verandahs simply as a place to provide for any overtaxing of the normal accommodation, they are in some institutions made more use of than are the wards. The reasons for this are twofold:—

(1) The patients much prefer to be on the verandah than in the ward. I have visited a large number of metropolitan and country hospitals in this and the neighbouring States during the last year, and have generally taken the opportunity of questioning both the patients and the nurses on the subject. The patients without exception declared their strong preference for the open air, saying that it was so much more cheerful and interesting, while the nurses stated that the patients seemed to get on better in the open and that the children slept more soundly.

(2) Medical men are realizing more and more that a very large proportion—perhaps the majority of the patients they are called on to treat—do better and recover more quickly if kept in the open instead of inside. I well remember the actual shock I experienced when, many years ago, I first visited the Queen Victoria Sanatorium at Wentworth Falls and saw the patients there lying in open huts, although a cold westerly was blowing. I had often read about the open-air treatment, but really never realized what it was till then, and I suppose old beliefs and prejudices rose in opposition. This, too, in spite of the fact that more than once I had slept *à la belle étoile* on a hillside in Scotland.

A little later I read in a medical journal how influenza broke out among the patients at the Brompton Hospital, and that the cases were so numerous that, at last, the practice of bringing the open-air patients into the wards immediately they were affected had to be abandoned, and in fear and trembling they were left outside. And to the intense surprise of all, those left in the open did better in every way than those treated inside—had less fever, more rapid convalescence and fewer sequelæ.

Since then the quest for the open has gone on apace. Some pioneer started to put his pneumonia patients outside, and found he was justified, and now open-air treatment of pneumonia is the recognized procedure—in Australia, at any rate. Osler recommends it for cases of pneumonia, broncho-pneumonia and pleurisy. In 1913 Dr. P. Boobbyer, at a meeting of the Royal Institute of Architects, recounted his experience of the treatment of disease in the open. He stated that patients suffering from severe lobar pneumonia, catarrhal pneumonia following measles and whooping cough, small-pox, scarlet fever and post-scarlatinal nephritis all did better in the open air, though at first he had found it difficult to persuade the nursing staff to abandon belief in the necessity of a high temperature in cold weather. Others laud it for gastro-enteritis, typhoid fever, diphtheria, septic infections, asthma and nervous disorders; in fact, there is hardly a morbid condition which does not seem to be benefited by a change from inside to outside. If, therefore, the patients all prefer to be in the open, and if, in the vast majority of cases, it is a distinct advantage from the medical standpoint for them to be treated there, why should we persist in Australia in erecting great and costly buildings for the accommodation of patients who would be happier and better on the verandah I propose. It is argued that the ward should be surrounded by wide verandahs, and that the patients should be moved out and in. But if there is no need to move them in, why go to the expense of constructing the ward at all? It is a fact, also, when this plan is followed out, that the wide verandahs shut out the sunlight from the ward, making it dark and cheerless, and depriving it of the antiseptic action of the sun's rays.

My suggestion for an Australian hospital, whether it be large or small, in the city or a country town, is that the main feature of it will be the open-air ward. The great majority of the patients will be treated there, but two or more indoor wards, with a few beds, can be provided for certain patients whom it is thought desirable to keep inside.

This form of construction has been followed in a number of the temporary military hospitals in Great Britain, and if this has been found beneficial in the English climate, how much more so would it not be here, where the mean annual temperature is from 10° to 20° above that of England?

I propose, then, that the verandah ward should have a northerly or north-easterly aspect on the New South Wales coast at least, and should, if necessary, be constructed of sufficient width to allow of two rows of beds. The beds need not be further apart than necessary to permit the occupants to be conveniently attended to, because the problem of floor and cubic space in their relationship to an adequate amount of pure air does not present itself.

There should be a row of windows, which can be opened high up in the back wall, to afford cross ventilation, even in the open-air ward.

Along the open front screens or blinds would be arranged to exclude driving rain or an exceptional wind storm. To prevent these wards from getting unpleasantly warm in the summer time, a double roof should be provided, screens or blinds could be partly lowered, and each ward provided with several air fans, driven by electricity or hydraulic pressure.

There need be no attempt made to warm the ward in the winter, but an enclosed sitting-room could be

provided for patients who are up during the day-time. The objection has been raised that an open-air ward would be very dusty, but all wards, even when the windows are closed, get more or less dust in them, and it is questionable if a little more would make any difference. A grass plot could be placed in front of the ward, with trees in the background.

The back wall and the parapet, with the supporting columns, could be of brick or ferro-concrete, and the floor cemented, with a slight fall, so that it could be hosed down; in fact, the inner structure of the whole ward should be such that the hose could be used everywhere.

The wards could be placed side by side, or one in front of the other, if it was thought desirable to keep the hospital on the ground floor. On the other hand, where the ground space was limited, there could be several stories of open wards. As for the offices and annexes to the ward, these could be placed either at the back of the ward, opening on to a passage-way running behind the ward, or they could be contained in a central block, with the wards on either side. These, however, are matters which the architect must be left to determine, as he also is the only person capable of estimating the amount of saving that would result from this change in hospital construction.

It remains for the medical men to say what are the cases that are not suitable for the open-air treatment and would not be benefited by it. I am convinced that these cases are so few as to be almost negligible, but, nevertheless, special provision can be made for them.

I leave the question there for discussion, believing that you will approach it with an open mind, in the interests of both the hospital patients and the State.

THE EYES AND EARS OF SOLDIERS IN EGYPT:[1]

An Account of the Work of the Eye, Ear, Nose and Throat Department of the Fourteenth Australian General Hospital, Australian Imperial Force, Egypt, up to April, 1918.

By **Leonard J. C. Mitchell, M.B., B.S. (Melb.),**
Honorary Acting Ophthalmic Surgeon to the Melbourne Hospital; formerly Ophthalmic Surgeon and Aurist to Fourteenth Australian General Hospital, Australian Imperial Forces.

Eyes and Ears of Soldiers in Egypt.

When he first comes into contact with soldier patients, the practitioner is faced with an entirely new state of affairs, and the sooner he realizes that these patients are for the most part not trying to get well the sooner will he become an efficient military medical officer. The whole symptomatology of disease is profoundly affected by this fact, and in no branch of medical science is one more easily misled or more at a loss to reconcile observed facts with patients' statements than in affections of sight and hearing. Consciously or unconsciously, the majority of soldiers exaggerate their symptoms, and so make it very difficult to those not accustomed to military work to steer the middle course between, on the one hand, classing all soldiers as malingerers and, on the other, believing all the soldiers say. The soldier with defective vision, for instance, does not want to wear glasses. They are an encumbrance on service, and he will not wear glasses unless he be a presbyope or a myope, or has worn glasses before, that is to say, unless the relief is very apparent to him. In the case of old running ears, arrangements have been made for men to be supplied with printed instructions, together with wool and ear drops for the purpose of keeping the affected ears clean, but this is almost a counsel of perfection. A light horseman has to carry his arms and equipment, together with horse feed and water, and the amount of personal kit which he can get into the pockets of his tunic. The open life is a very strenuous and rough one, and, at best, spectacles will get broken and are very difficult to keep clean at any time under these conditions.

The unpardonable carelessness shown by examining medical officers in the earlier years of the war resulted in numbers of men being sent abroad with only one useful eye. Not infrequently the "D1" forms in these cases were marked "full vision in each eye," when the least amount of care and a very slight acquaintance with the Commonwealth Military Forces regulation for testing vision would have avoided such a serious error. So also men were sent forward with long-standing discharging ears. Both these classes of defects, as a rule, lead to the men being made "B" Class sooner or later, and, in the ear conditions, frequently entail a long stay in hospital. It should be realized that, even if a man can continue to deceive (and with the best possible intention, namely, of remaining in the firing-line) the various medical officers, there usually comes a time when the man wants to go to the base for one of any number of reasons. Given such circumstances, he knows that it is only necessary to complain of his amblyopic eye or his running ear and he will be sent to the base for investigation. Then follows, in the case of the amblyopic eye, the reversion to "B" Class, while the ear may or may not clear up.

Another aspect of military medical work which makes it more difficult to form opinions, is the fact that certain instructions are issued as to what steps are to be taken in certain circumstances, for instance, the regulation that "no operation of election is to be done on service," at times complicates matters. Naturally the correction of an old squint is debarred, but just whether to operate or not on an old-standing suppurating middle ear is a delicate question.

As the war goes on the regulations governing boarding are constantly being modified, primarily with the motive of conserving man power. In this respect the Australian Imperial Forces instructions differ from the Imperial in a very marked degree. A British garrison battalion on foreign service in the present year would be boarded *en bloc* as permanently unfit by any Australian Imperial Forces Board. There being no "special sense" regulations, apart from the recruiting standards, and age, the Imperial recommendations were, in the most part, followed, though commanding officers gave a free hand to do the best for the case under review.

In the writer's opinion the treating of soldier patients in hospital can never be satisfactory unless the officers give their whole time to the work. Having seen the part-time system from the very beginning at

[1] Read at a Meeting of the Victorian Branch of the British Medical Association on September 4, 1918.

work in Australia, it is obvious that visiting medical officers, for the most part, treat soldiers just as they would treat civilian hospital patients, while the officers are distracted by the claims of private practice. The result is that both branches of work suffer. This point has, perhaps, been sufficiently emphasized, but, at the risk of stressing the point, it is urged that this state of affairs is fundamentally wrong. The claims of the whole-time service system need only to be realized to be adopted. The success of such service is apparent, and the war hospital unit which is properly organized on active service gives more satisfactory results from all points of view than a home hospital as at present constituted in Australia. The relation between medical officer and patient must be much closer than is possible with the system of junior resident captains and visiting senior officers, and it is just this closer relation which means success, which means safeguarding any soldier from being harshly judged, and which, above all, enables malingerers to be picked out with rapidity and certainty. It should be realized that the rank and file regard most officers with suspicion at first, but, this barrier being once down, diagnosis, prognosis and treatment become at once more accurate and efficient.

Arriving in Egypt in 1916, the Fourteenth Australian General Hospital took over the building, patients and equipment formerly controlled by the Third Australian General Hospital. The "special sense" ward was at that time 80 beds, most of which were occupied. A considerable proportion of the patients then taken over were boarded for return to Australia. The delay caused by shortage of shipping gave time for many of these cases to improve, and a revision of the cases at a later date resulted in the greater number of them being re-classified by the Board as "B" Class, for service in Egypt or for return to their units "fit for duty." From this time onwards a steady stream of cases kept the special ward full, and it was later found necessary to add another twelve beds to the number formerly available. The patients were for the most part members of the Australian Light Horse Regiments, and the majority of them had been in Egypt since 1914.

The figures quoted below refer to the year 1917 only, as Army records are compiled by the calendar year. The work of the Eye and Ear, Nose and Throat Department may be subdivided into (1) in-patients, (2) out-patients, and (3) patients in medical and surgical wards. The average number of in-patients in the special ward was about 75. The out-patients included (*a*) patients who were able to walk to the department from other wards, (*b*) members of the hospital staff, and (*c*) patients not in hospital, but visiting from Australian units in the vicinity. Together these averaged from 40 to 50 persons a week. Patients in medical and surgical wards were mostly for fundus examination, either cases of suspected increased intracranial pressure or renal and allied cases.

Eye Cases.

Of external diseases of the eyes angular and catarrhal conditions were not in any way different in type from those of a civilian hospital. The number of catarrhal cases (89) was high, and these cases were all due to the irritation of the sand and the glare of the sun, which lowers the resistance of the conjunctiva. Also, the air tends to the rapid drying of the lachrymal fluid, thus lessening the normal bathing of the cornea. Muco-purulent conjunctivitis of the typical Koch-Weeks variety was rare, only six cases coming into hospital in 1917. This disease is rampant among the native population, and might reasonably have been expected to have affected more of the troops. The freedom from virulent infection by the bacillus of this disease and the absence of any case of trachoma which could be traced to infection in Egypt, speak volumes for the personal cleanliness of the troops and for their abhorrence of the universal fly. Gonorrhœal conjunctivitis was conspicuous by its rare occurrence, but presented no unusual difficulties. It should be borne in mind that the Australian Dermatological Hospital was attached to the Fourteenth Australian General Hospital for about twelve months, and in that time only four cases of ocular infection by the gonococcus were admitted to the General Hospital. The number of patients in the Dermatological Section varied between 150 to 200, and it is a striking fact that military control and strict supervision by well trained orderlies so limited infection as to make it comparatively rare.

Trachoma, the universal eye disease of Egypt, affecting, as it does, at some period of their lives, 95% of the native population, and the consequences of which fill the streets with blind and one-eyed people of all classes, furnished some 39 cases in 1917. No single case could be attributed to infection contracted in Egypt, and the experience of the British hospitals in Egypt is in accord with this. Of these cases, one-third were cases of many years' standing, and two-thirds were a more recent type in young patients, but every case gave a history of attacks in Australia prior to enlistment. The treatment adopted for all cases showing any active signs was as follows: Under a general anæsthetic the lids were double-everted by means of special forceps (Darier's) and the whole upper fornix and tarsal region was scarified with a Beer's knife, and then a solution of perchloride of mercury in glycerin (1 in 200) was scrubbed in with a hard tooth brush. The whole conjunctiva was then rubbed with gauze soaked in the same solution. The lower lids were similarly treated. The roller forceps were rarely used. The application, on a wool mop, of the perchloride solution was repeated daily, under cocaine at first, for some weeks, the eyes being bathed twice daily with perchloride lotion of strength varying from 1 in 8,000 to 1 in 10,000. After from four to six weeks the scarring was usually sufficiently complete to allow of the patient returning to duty. Very few trachoma cases had to be invalided to Australia.

Gunshot wounds were somewhat rare, owing partly to the absence of trench warfare, and partly because so many orbital wounds are fatal. Several cases of this nature were due to bullet splashes from the stones in the Judean hills, and others to shrapnel. Out of sixteen cases the eyes were saved in ten cases.

Pterygium was very prevalent, but again in no case could the condition be ascribed to the desert conditions, except in so far as these conditions aggravated an old-standing state of affairs. The light horsemen, being largely recruited from the country, and

hence including men who had spent their lives out of doors in dusty districts, naturally provided an ample basis of degenerated conjunctiva for the sand and wind to aggravate further. The result was that some 66 cases came under observation in 1917 alone. Of this number, 57 were operated on, some in one eye and others in both. In no case was the operation undertaken unless the symptoms prevented the soldier from going on with his work, and, further, unless the condition was becoming more marked. The operation done was that desecribed by McReynolds, it being a slight modification of the operation of Desmarres Senior. The features of the operation are the complete separation of the corneal attachment of the growth, the scraping clean of the cornea, and the incision along the lower border only of the growth. Then follows the transplantation of the former corneal portion of the growth to a spot under the bulbar conjunctiva, below the cornea. The remainder of the growth folds down neatly, and healing is very rapid. The stitch is removed about the fourth day. The patients all returned to duty. In one case the primary incision had not been sufficiently wide, and a slight recurrence was observed. Treating this in the same way, that is to say, repeating the operation, this soldier was able to go back to his unit. The average stay in hospital was from ten to fifteen days.

Corneal ulcers of the dendritic type were very prevalent. These were often associated with keratitis of a non-syphilitic type. These cases were the despair of the Army eye clinics in Egypt, as many of them failed to respond to any treatment. All the various remedies were tried in turn: cases would clear up, but the cornea nearly always broke down again on service. The absence of something essential in the diet seems, by a process of exclusion, to be the most probable causative factor. The vitamines present in ordinary diet must be very much less in evidence on service diet. When some uncooked food, such as dates or oranges, was available, these cases were not so common, but for the greater part of the year the ward always contained a few cases. Several were invalided back to Australia.

Cataract, both senile and traumatic, was rare, as also were choroido-retinal conditions of all types. This is not remarkable, when one considers the type of men on service. However, the symptom of night blindness became very fashionable, and the history given was usually lengthy and picturesque, but the extreme rarity of a soldier hurting himself by tripping over objects at night was consistent with the objective findings in the eye. The eyes of patients so complaining were examined with great care, and no lesions were found in the great majority of cases. One case each of *retinitis pigmentosa,* disseminated choroiditis, and macular choroiditis, was found among many hundreds of men who complained of night blindness. A case of true shell shock blindness cleared up under isolation treatment (by orderlies only) in a few days.

Glaucoma of the subacute or chronic type was seen in two cases, and both responded to operative treatment. Errors of refraction formed the great bulk of the work among the out-patients, but far too many soldiers are sent to the base for a pair of glasses. This latter state of affairs is due to a defect in the military machine, and is about to be corrected. In a unit like the Australian Remounts there is a large percentage of presbyopes, because this unit was formed with a view to being first of all a collection of expert horsemen, and the age limit was not so low as for general service. Taking the number of men presenting themselves complaining of asthenopia in 1917, 18% had either no error of refraction or one so low that its correction by glasses, supplied at the public expense, was forbidden. Hypermetropia and hypermetropic astigmatism accounted for 50% of the remainder, myopia and myopic astigmatism accounted for 20%, mixed astigmatism for 10% and presbyopia for 20%. Three hundred and fifty seven pairs of spectacles were ordered in 1917. Into the question of the advisability of raising or lowering the standard of vision it is not proposed to enter, but it may be remarked that the standard appears to be adequate, provided no men slip through. It is further noteworthy that many men with $^{6}/_{12}$ or even $^{6}/_{18}$ vision make good sharpshooters, in spite of the visual defect.

Throat Cases.

Tonsillitis was always with us, and the number of peritonsillar abscesses was high. The organism was the streptococcus in the majority of instances. Routine swabbing of every throat case admitted resulted in the discovery of some ten cases of Klebs-Löffler bacillus, but of these, eight were carriers only. They were immediately sent to the Army Infectious Diseases Hospital at Choubra. The small number of cases of diphtheria is accounted for by the fact that there were big isolation camps in the field, where microscopic work was done and treatment undertaken, if any *Bacillus diphtheriæ* was present. Of the 340 cases admitted to hospital with unhealthy tonsils, and giving a history of two or more attacks of tonsillitis on service, enucleation of the tonsils was done in 130 cases. The method was that described by Whillis and Pybus, and the guillotine was either Sluder's or O'Malley's scissor pattern. Adenoids were found in almost every case of enlarged or chronically inflamed tonsils. One hundred and twenty cases presented adenoids only.

Laryngeal conditions could be divided into acute laryngitis and chronic laryngitis. The former condition always cleared up, but the latter, in the form usually described as *pachydermia laryngis,* proved very obstinate. There was no question of malingering, as the cords were typical of the condition, but the climatic conditions did not seem to favour recovery, save at a very slow rate. Syphilis and tubercle were both excluded in the latter condition. One case of aphonia of functional type recovered under isolation treatment. Laryngeal paralyses of obscure origin were met with four times, but as these cases were returned to Australia, their subsequent history is not at present available. No doubt there was a functional element in some of these cases.

Nasal Conditions.

Serious cases of rhinitis were not encountered, but deflections of the nasal septum were very common. These cases had histories of old injuries or of prolonged nasal obstruction, with the important

additional symptoms of the inability of the patient to wear the gas helmet. Such cases were rendered efficient by free submucous resection of the nasal septum. Eighty-nine such cases were relieved in 1917. Ethmoidal and sphenoidal conditions were rare. Six cases of frontal sinusitis were met with, and five cases of maxillary sinusitis were relieved by the radical operation through the canine fossa. Of gunshot wounds, some five cases had the sinuses involved, but with the exception of one severe wound of the frontal bone, with huge cerebral hernia, it was necessary only to remove the bullet, if it was present, or otherwise to adopt expectant treatment. A rifle bullet passing transversely through the face, providing it misses the lower jaw, seems to cause very little disturbance of the bony structures. X-ray photographs confirm this.

Ear Cases.

Chronic *otitis media*, with suppuration, was present in 107 cases, and without suppuration in 99 cases. Of the former group, many had symptoms of mastoid involvement, which cleared up under treatment. The majority of the remaining discharging ears were cleared up with the same treatment, namely, the syringing twice daily with lysol lotion (1 in 200) and the subsequent soaking with 50% *spiritus vini rectificatus* drops. Other methods, such as mopping with dry wool, etc., were found to be impracticable with the staff available. Six cases were treated with mixed staphylococcal vaccine in addition, but the results were not any more satisfactory than without vaccine. The cases which did not clear up, and which did not present mastoid symptoms, were sent back to duty with instructions as to cleaning their own ears. There were six cases of acute mastoiditis, and a modified Heath's operation was done with excellent results in five cases. The sixth patient succumbed to basal meningitis twenty-four hours after operation.

Of the cases of dry chronic catarrh of the middle ear, with more or less deafness, courses of inflation improved all but old-standing cases, and such cases as showed little or no improvement were of necessity referred to the Board for classification or invaliding.

Furunculosis of the ears was seen in 21 cases, and all proved troublesome. Like boils on other parts of the body, they tended to spread and multiply, in spite of treatment by antiseptics and vaccines. The patient's resistance could be but slowly built up, and a long course of treatment was necessary before such cases could return to duty. Cases seen among the civil population have similar features. Whether climatic or hygienic conditions favour the spread of foci, the fact remains that the spreading is difficult to check by the means at one's disposal.

One case of a soldier malingering absolute deafness was of special interest. The man retained his composure and could not be caught by any of the time-honoured tests, and it was not until after some five weeks in hospital that he was caught. The discharging of an air gun behind his chair one day when he was apparently not being watched made him jump, and a few minutes afterwards he confessed to having had normal hearing throughout.

Equipment.

The equipment supplied by the Army for the use in these departments of medicine is ridiculously inadequate. The surgeon needs all the instruments and apparatus he would use in private practice, together with such instruments as a giant magnet. In the case of the Fourteenth Australian General Hospital, the necessary equipment was purchased by the Australian Branch of the British Red Cross Society.

The Consulting Ophthalmic Surgeon to the Egyptian Expeditionary Force, Lieutenant-Colonel H. L. Eason, C.M.G., R.A.M.C., was always ready to give advice in cases which presented unusual aspects.

I have to thank the commanding officers of the Fourteenth Australian General Hospital, Lieutenant-Colonel A. H. Thwaites, D.S.O., Lieutenant-Colonel Macdonald, and Colonel W. Summons for giving me every facility in regard to the military side of the work, particularly in lessening the number of changes in nursing and orderly staff, and Sergeant A. S. Wilkinson, the non-commissioned officer in charge of the department, for his zeal, enthusiasm and efficiency in conducting the detail and in keeping the records.

Reports of Cases.

TWO CASES OF SMALL UPPER ABDOMINAL TUMOUR:
(*a*) Omentum Adherent to a Leaking Malignant Ulcer of the Stomach;
(*b*) Torsion of the Omentum, Adherent to the Healthy Stomach.

By **G. A. Syme, M.S., F.R.C.S.,**
Melbourne.

(*a*) Mrs. G. was seen in consultation with Dr. J. F. Wilkinson on July 13, 1918. She was aged 52 years, and had been treated by Dr. Wilkinson off and on during the past four years for indigestion. A few days previously she had had pain in the left side of the abdomen, and herself discovered a lump, which was tender. She had had no vomiting and no other symptoms. On examination a hard mass, the size of a small tangerine orange, could be felt in the region of the umbilicus, extending somewhat to the right. It was rather tender, moved with respiration and was movable laterally. An X-ray screen examination after an opaque meal showed that the stomach was large and low, with delayed emptying, and that there was a reversed peristalsis in the duodenum.

The patient was very thin, but said that she had always been so. An operation was advised and performed on July 16, 1918. On opening the abdomen the omentum was found to be adherent to the anterior wall of the stomach and also to the parietes. On separating the adhesions an open ulcer was exposed, the size of a threepenny-bit, with thickened edges in the anterior wall of the stomach, towards the greater curvature; a gland in the great omentum below the ulcer was found to be greatly enlarged. The anterior wall of the stomach was widely resected, with the glands in the great omentum, and the gap closed by iodized catgut through all the coats and a sero-muscular suture of thread. The patient made an uninterrupted recovery, and Dr. C. H. Mollison examined the removed portion and reported that both the ulcer and the glands were malignant, being endotheliomatous.[1]

(*b*) Mrs. S. was seen at the Melbourne Hospital with Dr. Stawell, under whose care she had been admitted, on July 6, 1918. She had been in perfect health until 14 days before, when she had pain and a feeling of heaviness in the abdomen. Two days later she noticed a lump in the left side of the abdomen, which was tender to the touch. It had not altered

[1] Since these notes were written, extensive recurrence has taken place in the glands.

in size. She had no vomiting or other symptoms, and had not lost weight.

On admission her temperature was 37.4° C. and pulse-rate 104. The abdomen was soft, moving well with respiration. There was a swelling, somewhat sausage-shaped, about 7.62 cm. in its longest direction, hard and freely movable in all directions. An X-ray screen examination, after an opaque meal, showed that the mass was apparently in the stomach wall, moving with it, and that there was a suspicion of a "filling defect."

Specimen of Twisted Omentum (Mrs. S.).

She was transferred to the surgical ward and an operation was performed on July 15, 1918. The lump proved to be thickened omentum, adherent to the anterior surface of the stomach. When separated the stomach appeared healthy. The omentum was found to be twisted five times. The twisted portion was ligatured with iodized catgut and removed. There was no sign of any hernia or of any other pathological condition. The patient made an uninterrupted recovery, and was discharged on July 30, 1918.

Remarks.

Although the pathological conditions were different, the symptoms and physical signs in these two cases were so similar as to make an accurate diagnosis very difficult.

Endothelioma of the stomach is rare, and perforation of a malignant ulcer of the stomach is not very common. Torsion of the omentum, unassociated with hernia, is no longer the surgical curiosity it was when I reported a case in the *Intercolonial Medical Journal* of September, 1902, but it is still rare. I have not met an explanation of the cause of the torsion.

Reviews.

MANUAL OF MEDICINE.

In these days of more or less ponderous monographs on every branch of medicine, it must be an exceedingly difficult task to discuss, at all adequately, the whole subject in one volume of moderate size. Dr. T. K. Monro, of Glasgow, is to be congratulated on the skill with which he has succeeded in including practically all the essentials of his various subjects in one volume,[1] though they have necessarily been somewhat briefly treated.

The ineradicable Caledonian love of the non-committal obtrudes itself early and often, and is exemplified by such a phrase as "it is a common practice" and by the oft-repeated use of the word "may." Surely a clinician of Dr. Monro's experience would be justified in manifesting a good deal more dogmatism in some of the places where he hesitates about committing himself. For example, in a case of acute dry pleurisy, most clinicians would agree that a hypodermic injection of morphia must, rather than may, be given, in an early stage, at any rate. Again, under the heading of "cirrhosis of the liver," when ascites is very pronounced, he says: "If drugs fail, the abdomen may have to be tapped." Surely tapping is imperative in such a case. One expects a clinician under similar conditions to say what he would do, and not content himself with mentioning numerous possibilities.

The opening chapter on fever, though brief, is well illustrated, and presents the subject in interesting fashion. Under the heading of typhoid fever one might suggest the advisability of mentioning leucopenia as a valuable diagnostic aid before the Widal reaction is to be expected. Again, Australian clinicians find that a tepid bath, 32° to 35° C. (90° to 95° F.), results in a maximum of benefit and a minimum of discomfort, and, consequently, prefer that temperature to that of 26.6° C. (80° F.) suggested by Dr. Monro.

Few clinicians will agree nowadays that 2,000 units is a sufficiently large initial dose for a case of diphtheria, and a few sentences might well have been devoted to the subject of the skiagraphic pictures of tuberculosis of the lungs.

The section devoted to the respiratory system, though somewhat disproportionately compressed, has been very well done. One or two points seem to call for criticism. The first is the statement that in acute croupous pneumonia, a cold or a warm bath must (one of the few "musts") be given if hyperpyrexia supervenes. Local experience goes to show that the manipulations incidental to a full bath at least counteract its antipyretic effect. Again, discussing broncho-pneumonia, the author says: "If opiates are used the greatest caution is required, owing to the risk of death by asphyxia." Why use them at all?

The ductless glands have, deservedly, had more than the usual space allotted to them. It is interesting to note the author's dread of surgical interference in exophthalmic goitre, in view of the brilliant results obtained by some Australian surgeons. Interesting, too, in this connexion, is the fact that he makes no reference to a septic focus as a possible cause of hyperthyroidism.

The digestive system has, in the matter of space, been more judicially treated than the other systems. The Cinderella of the abdomen, the pancreas, has been deservedly granted more than the usual brief space for discussion.

The circulatory system embodies the essentials of McKenzie's work, and is well illustrated. A brief description of the irritable heart of soldiers is included.

The urinary system is briefly, but satisfactorily, treated.

The nervous system seems to have been unduly favoured, as the space allotted to it exceeds the total of that assigned to the circulatory, respiratory and urinary systems! Surely the subject is not of such overweening importance as to justify such disproportionate treatment.

Apart from this want of proportion, no exception can be taken to this section, which is well discussed and well illustrated. Brief chapters on trench feet, trench nephritis and chronic interstitial enteritis make one realize that the work is quite up-to-date.

The book is very well got up, has numerous good illustrations, and can be recommended as in every way suitable for a senior student or for a practitioner who cannot spare time to read monographs or long articles in journals.

[1] Manual of Medicine, by Thomas Kirkpatrick Monro, M.A., M.D.; Fourth Edition, University Series; 1917. London: Baillière, Tindall & Cox; Demy 8vo., pp. 1,045, with 48 illustrations. Price, 18s. net.

Hospitals.

ST. VINCENT'S HOSPITAL, SYDNEY.

The sixtieth annual report of the Sisters of Charity places before the subscribers and the public the accounts and statistics of St. Vincent's Hospital, Sydney, for the year ending December 31, 1917. The report contains some interesting information about the foundation of the hospital and its early years. The five Sisters of Charity who founded St. Vincent's Hospital, Sydney, left their mother house in Dublin in 1838 at the invitation of Archbishop Polding. After braving the terrors and discomforts of a voyage to almost unknown land, they disembarked from the *Francis Spaight* on the last day of that year. For many years these tireless women worked among the poor and visited daily the prisons and reformatories, ever keeping before them the foundation of a hospital for the needy of the city. In 1857 friends of all denominations subscribed sufficient money to purchase the

property known as "Tarmons" from Sir Charles Nicholson, who presented the Sisters with £1,000, to enable them to commence their work. The house on this property was a substantial, aristocratic-looking mansion, built in the early days by Sir Maurice O'Connell, the stalwart soldier, who was said to be the brother of Daniel O'Connor, the great "Liberator." With the growth of the hospital and increasing demands upon its resources, more land was purchased, including the site of the present hospital. The original hospital is now used as St. Vincent's Convent. The foundation stone of the new hospital was laid in 1868, and the hospital was ready for the admission of patients two years later. A new south wing was added in 1892. To commemorate the Diamond Jubilee of the hospital a third storey will be added this year as a memorial to those gallant men who have fallen in the Australian army and navy.

The number of patients in the hospital at the end of the year 1916 was 89 men and 76 women. During the year 1,544 men and 1,442 women were admitted for treatment. There were discharged as cured 1,210 men and 1,185 women, as relieved 248 men and 184 women and as not relieved 23 men and 32 women. Seventy-one men and 46 women died, so that 81 men and 71 women remained in the hospital on December 31, 1917. The rate of mortality, as against the number of cases treated, was 3.1%, deducting 18 deaths which occurred within 24 hours of admission. The rate of mortality over all cases under treatment was 3.7%. As in previous years, the accommodation of the hospital was inadequate for the calls made on it by the sick poor. The number of patients had been always in excess of the number of beds available, so that stretchers and lounges have been requisitioned to meet the demands. The number of patients treated indoors was 3,151, the largest number yet treated in a year in the hospital. The number of patients treated in the out-door and casualty departments was 33,055, the number of attendances during the year being 77,914. Of these patients, 6,289 received attention in the medical department, 5,104 in the surgical department, 4,389 in the ophthalmic department, 2,931 in the ear, nose and throat department, 1,923 in the skin department, 31 in the orthopædic department, 48 in the vaccine department, 139 in the radium department, 1,106 in the X-ray department, 4,181 in the massage and electrotherapeutical department, 250 in the mental and nervous diseases department, and 6,754 in the casualty department. The number of surgical operations performed amounted to 3,019. Since the opening of the hospital in 1857, 75,966 patients have been admitted and 421,063 patients have been treated in the out-door patients' department.

A report from the pathological department shows that 101 patients were treated with vaccines. Of these patients, 41 received injections of tuberculin, 18 being for pulmonary tuberculosis and 16 for tubercular eye conditions. Eighteen patients received vaccines for infections with *bacillus coli communis*, 16 persons for rheumatism and 14 for furunculosis. Twenty-nine patients received diagnostic injections of tuberculin of whom 25 reacted in a positive way. Statistics of the work done in the pathological departments show that 148 microscopical examinations of the blood have been made, and that cultures of microbes were attempted on twelve occasions. The Widal test was carried out on 58 occasions and the Wassermann reaction was determined on 545 occasions. The sputum was examined for tubercular bacilli 133 times. Swabbings from the throat were investigated for the presence of *bacillus diphtheriæ*. The urine was examined for *bacillus tuberculosis* 70 times, by microscopical methods for casts and crystals on 111 occasions and by bacteriological processes in 117 persons. Chemical tests on the urine were carried out 39 times, and quantitative estimations of sugar were made on the urines of 24 persons. Seventeen specimens of fæces were studied, to determine the presence of organisms. It may be noted that only six post-mortem examinations were carried out.

The maintenance account of the hospital shows that £5,657 were expended upon provisions for feeding the patients, £1,417 were spent upon drugs, chemicals, disinfectants, surgical dressings, instruments and appliances, £2,188 were expended upon fuel, gas, electricity, soap, furniture and so on, and £4,127 covered salaries and wages, rates, telephone and insurance. To meet the cost of the hospital, subscriptions, donations and contributions yielded £10,100, the Hospital Saturday Fund provided £850, the Government of New South Wales contributed £1,250, and a benefit race meeting yielded £484. The year closed with an overdraft of £1,847.

The return in regard to operations shows that 2,442 operations were performed under general anæsthesia. Ether was used 781 times, chloroform was given 709 times and mixed ether and chloroform on 952 occasions. Local anæsthesia was employed for 577 operations. The summary shows that 577 abdominal operations were performed, 236 being on men and 341 on women. Four men and one woman died. The number of gynæcological operations was 596, with two deaths. There were 51 amputations.

Naval and Military.

CASUALTIES.

The 487th list of casualties, which was released for publication on October 26, 1918, contains the name of one medical officer of the Australian Army Medical Corps. Captain Albert James Reye is reported to be ill.

HONOURS.

In the *Commonwealth of Australia Gazette*, No. 165, dated October 24, 1918, extracts from the *London Gazette* are reproduced, dealing with the names of officers and men mentioned in Sir Douglas Haig's dispatch of April 7, 1918, as deserving of special mention. The following are the names of the medical officers of the Australian Army Medical Corps mentioned:

Captain R. D. Bartram.
Major F. L. Bignell.
Lieutenant-Colonel E. T. Brennan, M.C.
Major E. A. Brummitt.
Major A. L. Buchanan.
Major A. R. Clayton.
Captain (Temperory Lieutenant-Colonel) W. H. Collins, D.S.O.
Captain G. V. Davies, D.S.O.
Lieutenant-Colonel T. P. Dunhill.
Major A. T. Dunlop.
Major T. C. C. Evans.
Captain A. J. McK. Fargie.
Captain R. P. W. Francis.
Captain J. C. M. Harper.
Captain M. J. Holmes.
Captain A. J. de S. Howard.
Major E. L. Hutchinson, D.S.O.
Lieutenant-Colonel W. E. Kay.
Major F. N. le Messurier.
Captain J. A. Love.
Major D. S. Mackenzie.
Major A. McKillop.
Major (Temporary Lieutenant-Colonel) A. F. Maclure.
Captain R. G. McPhee.
Major P. A. Maplestone, D.S.O.
Major A. V. Meehan.
Major W. A. Morton.
Lieutenant-Colonel B. Quick.
Captain C. M. Samson.
Honorary Captain P. Smith.
Major (Temporary Lieutenant-Colonel) V. O. Stacy.
Lieutenant-Colonel H. C. Taylor-Young.
Major R. J. Taylor.
Lieutenant-Colonel W. G. D. Upjohn.

APPOINTMENTS.

Australian Imperial Force.

To be Major—
Captain J. S. Yule, No. 1 Hospital Ship. Dated 1st October, 1918.

To be Captains—
Reeve Palmerston Rundle and Angus McInnes. Dated 2nd May, 1918.

The Public Works Department of Victoria have accepted a tender at £6,772 for the erection of a clinic for women patients suffering from venereal disease. The clinic will be situated in Little Lonsdale Street, Melbourne.

The Medical Journal of Australia.

SATURDAY, NOVEMBER 2, 1918.

The British Medical Association and the War.

During the four years of warfare, the British Medical Association throughout the Empire has adopted an attitude of grave responsibility in connexion with the war. The Association recognized early that its machinery and the fact that it occupies the position of the most representative body of the medical profession imposed on it the duty of constituting itself the intermediary between the military authorities and the profession. At each Representative Meeting a full discussion has taken place on the obligations of medical practitioners to the Empire and on the obligations of the Imperial Government toward the medical profession. At home and overseas the medical profession demonstrated in the most striking manner possible its loyalty and its preparedness to undertake the noble task of rendering professional aid to the sailors and soldiers of our Empire. The Government found it advisable to extend recognition to the British Medical Association in its self-imposed rôle. The Central Medical War Committee of the Association has been given statutory powers, and it is quite clear from the published records of that Committee that it had exercised those powers with discretion and wisdom. Up to November, 1917, the Committee had stood in intimate relations to the War Office, but since that date the functions of regulating recruiting and the supply of medical officers had been vested in the Ministry of Military Service. As time passed the strain on the medical profession has become greater and greater, and on more than one occasion the Committee has found it necessary to point out that the needs of the Army could only be met with difficulty and after special arrangements had been made. At the Annual Representative Meeting of 1917 the policy of the British Medical Association was established in regard to the question of conscription of the medical profession. The Government was informed that the Association was prepared to submit to a wider form of conscription than that which was prescribed for the civil community. It urged a general mobilization, and, as a result, the Government raised the military age for the medical profession from 45 years to 56 years. While this special treatment was being meted out to a single class of the community, the non-conscripted section of the profession agreed to render service to the civilian population at the dictates of the National Service Ministry. In July, 1917, and again in August, 1918, it became apparent to the Central Medical War Committee that the withdrawal of practitioners from civil practice had almost reached its limit. Individual practitioners eased the acute position somewhat by re-arranging their private practices, in order that the work might be done more economically as far as time and energy were concerned, and by undertaking additional civil work they succeeded in liberating more men for active service. The sacrifice was undoubtedly great, and almost every civilian practitioner was overworked. Holidays became an impossibility to many on account of the scarcity of *locum tenentes*. It is quite certain that, as long as the war lasts, the medical profession as a whole will meet the situation.

The Federal Government finds that what is a *fait accompli* in Great Britain is an impossibility in Australia. Special treatment has been refused the medical profession in the Commonwealth when it asked for conscription. We hear of the shortage of medical practitioners in the Commonwealth. The shortage is only relative. Organization of civil practice, re-organization of home military medical service and a more economical utilization of specially skilled practitioners would result in the liberation of a considerable number of men for active service abroad. The need for medical officers in France is still acute. The one difficulty is that of transport. Why should the medical profession be prevented from utilizing its resources as completely as in the mother country? The medical profession in Australia is at the disposal of the Federal Government. The Minister should not hesitate in availing himself of its services.

. . . . . .

The military authorities are at present seeking a number of practitioners for whole-time service in military hospitals in Queensland, Western Australia and Tasmania. In the three States there is consider-

able difficulty in securing the services of medical officers, both in military and in civil hospitals. It will be noted in the advertisement which appears in another portion of this number that preference will be given to men who have served the Empire abroad. In the absence of a sufficient number of returned men a further preference will be given to those who have applied for enlistment in the Australian Imperial Force and have been rejected on account of physical defects which would render a man unsuited for service abroad, but which would not interfere with the proper performance of camp duties at home. We would ask others to apply for the vacancies as well, in order that the Department may have as many practitioners as they require without loss of time.

OPEN-AIR TREATMENT.

The discussion on a paper read by Dr. Richard Arthur, M.L.A., before the members of the New South Wales Branch of the British Medical Association and of the New South Wales Institute of Architects on October 25, 1918, reveals that many of the leaders of the two professions have difficulty in evaluating new methods, or perhaps it would be more correct to say departures from old methods. Readers will find that surgeons and physicians are not prepared to move their patients from the inside of their solidly-built hospital wards into verandah wards, where the supply of air is practically unlimited. The arguments adduced are that the exposure of large surfaces of skin to air in the dressing of operation wounds is held to be a process fraught with danger, that the winds that blow in the Commonwealth are so boisterous that the patients' comfort and safety would be lessened by exposure to them, that there is little or no statistical evidence of a beneficial action of an unlimited supply of pure air for patients suffering from diseases other than tuberculosis, and that a free supply of air can be obtained without any discomfort by increasing the through ventilation in in-door wards. Incidentally, one speaker expressed the opinion that the beneficial factor in the open-air treatment of pulmonary tuberculosis was sunlight, and not pure air. It may be of advantage to recall the events which led to the general adoption of the open-air treatment of pulmonary tuberculosis. In the year 1747 the Reverend Andrew Stewart, M.D., advocated treating patients for many hours daily in the open-air, especially when the disease began with acute inflammation. During the century that followed a few physicians learnt to appreciate the therapeutic value of pure air in the treatment of this malady, but their advice was persistently ignored. The names of Buchan, Benjamin Rush and Parrish are the best known. In 1840 George Bodington was probably the first to institute a planned sanatorium treatment for consumptives. He too received so much opposition from the members of his own profession that, after a time, he was forced by ridicule to relinquish his practice, and his sanatorium was actually converted into a lunatic asylum. It is probable that the insane patients would have benefited had Bodington continued to direct the treatment of the patients in his institution. In 1854 Hermann Brehmer took up the defence of Bodington, and five years later he founded the now famous sanatorium in Görbersdorf. Peter Dettweiler was one of his patients. He had contracted pulmonary tuberculosis during the Franco-Prussian War of 1870, and was cured of his affection. After serving as assistant to Brehmer for six years, he founded his institution at Falkenstein, while the third famous sanatorium for consumptives was that at Hohenhonnef, which Meissen opened in 1889. Very shortly after Walther started his establishment in Nordrach, while Turban erected his sanatorium at Davos, at a very high altiture, about the same time. The first American sanatorium was founded in 1884, the so-called Adirondack Cottage Sanatorium. In 1894 the proposal to establish a sanatorium in England was rejected on the assumption that the climate of Great Britain was unsuitable. Very soon after, however, a sanatorium was opened in the Cotswold Hills, near Cheltenham, and another on the east cost of England. Since the beginning of the present century sanatoria have sprung up like mushrooms in every country and in every climate.

It may be asked why do persons suffering from pulmonary tuberculosis do better in sanatoria than in hospitals or at home. It has been shown that the good results obtained at Görbersdorf, Falkenstein and Davos are not due to altitude, nor are they due to sunshine, warmth or special climatic conditions. There is no doubt that the medical supervision, the regula-

tion of the diet, rest and exercise, and the general discipline of the institutions are valuable factors, but history demonstrates clearly that pure, open air, unvitiated by human breathing, represents the optimum gaseous mixture for respiration and for aeration of the blood. The healing properties of pure air taken into the lungs, as compared with an atmosphere charged with carbon dioxide, or as compared with pure oxygen, are readily demonstrated in the sick room. In pulmonary tuberculosis the lesions tend to become walled-off from healthy lung tissue, and, consequently, it is unlikely that the fresh air inhaled has a direct curative effect on the foci in the lungs. Rather should it be assumed that the respiratory metabolism is carried out to better advantage in the more ideal conditions of the outer air. Gauvain has shown that other tubercular affections improve as well as do the pulmonary, out of doors, and when he combined with it the direct bactericidal action of the sun's rays, applied to diseased joints and spines, the healing action was enhanced. Nearly twenty-five years ago Dr. Phillip Boobbyer met the wishes of his municipal council by exercising economy in the construction of a hospital for infectious diseases. A row of cottages was converted into verandah wards and the patients were treated practically in the open-air. The results, compared statistically with those obtained in the provincial and metropolitan fever hospitals in England, proved in scarlatina, pertussis, enteric fever, diphtheria, and morbilli to be far better. He had no hesitation in treating nephritis or broncho-pneumonia in their acute stages in the open, and his results have justified this courageous undertaking. Dr. George E. Rennie has applied the same principle to the treatment of acute lobar pneumonia, and, notwithstanding the disparaging remarks of Dr. Mills, his results have been excellent. The modern physician does not fear to immerse a patient with high fever in a cold bath. Why should the surgeon hesitate to expose a patient for a short time to God's pure air? The people who "catch cold" are those who close their windows and lower their resistance toward infections by keeping their cutaneous vessels continuously filled. As soon as these hot-house plants go into the open air, or are exposed to a shaft of cool air, an ischæmia results, and for a time their protective apparatus is put out of gear. The febrile patient, too, has his peripheral skin vessels filled, and consequently the ward, whose atmosphere is laden with bacteria, is more dangerous than the outer purer air, when the cutaneous vessels contract. It is impossible to present statistical evidence of the benefit likely to accrue from a method of dealing with patients until this method has been widely adopted. But it is a retrograde step to avoid the experiment, when it has been shown that good results have been obtained by the few who have had the pluck to try it. We venture to agree with Dr. Arthur, who prophesies that the hospital of the future will be a shell, with one, two or even three open sides. Probably the best solution for Australian conditions would be the revolving ward, which can be turned away from the direction of the "howling blast."

AN EARLY AMERICAN PHYSIOLOGIST.

Rather more than a century ago the School of Medicine at Philadelphia harboured a student who was regarded by his teachers as a truly ingenious and amiable young man, who presented to them a remarkable thesis on graduation. John Richardson Young was the son of Dr. Samuel Young, a native of Ireland and an alumnus of Trinity College, Dublin, who had received his medical education in the University of Edinburgh. Dr. Samuel Young migrated to America before the Revolution, and, according to a contemporary, "attained a high position as a physician and as a good man." His son was sent to Princeton University, at that time called the College of New Jersey, from which he graduated in Arts in 1799. He returned to his birth-place, Hagerstown, Maryland, and commenced medical studies under the guidance of his father. In his famous thesis he makes affectionate reference in the dedication to this paternal instruction in "the first principles of medicine." In November, 1802, he journeyed to the University of Pennsylvania, to continue his medical education. Having received tuition from William Shippen in anatomy, surgery and midwifery, from Benjamin Rush in the institutes of medicine and in clinical medicine, from James Wodehouse in chemistry and from Benjamin Smith Barton in materia medica, botany and natural history, he graduated on June 9, 1803. In Philadelphia he came chiefly under the sway of Dr. Benjamin Smith Barton, to whom he addressed the thesis for his degree. On July 13, 1803, a notice appeared in the *Maryland Herald* that a partnership had been formed between the father and son for the practice of physic in Hagerstown. The brief history of this pioneer in physiological investigation is closed by a reference in the same newspaper, under the date of June 13, 1804, from which it is learnt that John K. Young, M.D., departed this transitory life on the 8th instant in the 22nd year of his age, after a long and tedious illness.

The thesis which has received so much attention in the United States during the last ten years was en-

titled "An Experimental Inquiry Into the Principles of Nutrition and the Digestive Process." It was submitted in 1803 as a thesis for the degree of Doctor of Medicine of the University of Pennsylvania. It was published by Messrs. Eaken and Mecum in Philadelphia in the same year. This edition is rare, but a copy exists in the Library of the Surgeon-General at Washington and the copy of Benjamin Rush, the American Sydenham, exists in the Ridgway Branch of the great library of Philadelphia. The inquiry is also included in Caldwell's "Medical Theses," published in 1805.

The thesis has attracted notice, since it shows by demonstration that the gastric juice has its origin in a secretion and not in any kind of fermentative process, vinous, acetous and otherwise. The synchronous flow of the saliva and gastric fluid is mentioned, as establishing the origin of the digestive fluid of the stomach. The first experiments seem to have been made on the large bull-frog, *Rana ocella*. Into the stomach of this large frog a tiny frog, *Rana pipiens*, was inserted through the wide œsophagus. A thread tied to the leg of this frog served to withdraw the animal, so that the progress of digestion could be observed from time to time. No odour of putrefaction appeared, and no fermentative change could be noticed. A calculus placed in the frog's stomach gradually dissolved. Beans, peas and wheat remained for thirty hours unchanged, while bread underwent digestion in the frog's stomach. Fortified with these observations, Young extended his inquiries to human digestion. An accommodating friend took a meal of sugar and regurgitated it after several hours. The material had undergone no vinous fermentation. Young himself dined upon "chicken pye" and irritated his fauces some time later. The rejected "pye" exhibited no acetous fermentation, even after nine hours' further warming. Many similar experiments upon himself and his friend were recorded, to show that the acid of the stomach was not derived from the food. Finally, the experimentalist emptied the stomach of snakes after feeding the reptiles upon flesh, bones, teeth, vegetables and cereals. These studies on snakes were undertaken to confirm what he had noticed with the frogs. Summing up his observations, he says: "Aliment is dissolved in the gastric menstruum; it then passes into the duodenum and meets with bile and pancreatic liquor; after being united with these, a heterogeneous mass is formed called chyme and from this the lacteals secrete chyle."

The main fact discovered by this pioneer in the field of fruitful experiment, who garnered his own sheaf of grain, is the recognition of digestion by an acid which was analysed and considered to be phosphoric acid. Young proceeded along the path which leads to success. He worked upon man and animals. He secured the gastric juice and studied its qualities *in vitro*. He saw how the juice checked putrefaction. He passed away from the theories of innate heat and vital spirits. He disproved the view that digestion was due to trituration, fermentation or putrefaction. His whole work was conceived and executed in the spirit of the words of Savoisier that Young inscribed on his thesis: "We ought in every instance to submit our reasoning to the test of experiment and never to search for truth but by the natural road of experiment and observation."

WAR WOUNDS OF THE CHEST.

The problem of the Army Medical Corps in dealing with wounded soldiers is firstly to return the men in a good physical condition to the lines, and, if this is impossible, to place them in the most favourable position for earning a livelihood in civil life. There is probably a serious danger in every clearing-station and base hospital that seriously wounded men may gain the impression that their disability is so severe that it must handicap them for the remainder of their lives. The military surgeon has to consider his duty to the Army first and before everything else. He needs to devote the greater part of his energies and ingenuity to the man who may be made fit for the front line again. The man who will probably not be fit to fight again is a second consideration, and there is a human tendency to expend more sympathy than energy in treatment on him. Medical officers in the general military hospitals and the medical advisers of the pensions boards come to the assistance of these men in Great Britain and endeavour to improve their outlook in life, partly by encouragement and partly by special methods of treatment adapted to the particular forms of disability present. There is one lesson that all who have to deal with seriously disabled soldiers, should learn. A disabled man should never be allowed to know that those responsible for his treatment and re-education have any misgivings concerning his ultimate capacity to earn a full living. Misplaced sympathy can undo the good that curative treatment has done. In the special instance of chest wounds a permanent deformity of the thorax may constitute a serious handicap in after life. It has been recognized that many men wounded in the chest who enter a military hospital are able to return to the fighting line later. Lieutenant-Colonel John Meakins and Captain T. W. Walker, of the Canadian Army Medical Corps, have endeavoured to ascertain what factor determines a permanent deformity of the chest, in order that preventive measures may be employed.[1] In a considerable series of cases it was found that deformity did not occur in patients whose pleura remained free. Deformity developed in the majority of cases after hæmothorax, while it was particularly common after pyothorax and pneumothorax. The deformity was found to be independent of injury to the lungs, ribs or muscles, although wounds of muscles led to some atrophy and loss of power of the affected muscle. Special means were employed to record drooping of the shoulder, alterations in the transverse shape of the chest and condition of the spine. The deformity usually becomes apparent after prolonged involvement of the pleura, and often continues to develope for a considerable time. They found, moreover, that the deformity could be prevented, if the pleural affection could be rapidly removed. They advocate early and repeated evacuation of fluid from the pleural cavity, especially when the fluid contents are infected. As soon as the patient is able to get out of bed, special exercises, having for their object the

[1] *Bulletin of the Canadian Army Medical Corps*, June, 1918.

prevention of an over-expansion of the healthy lung and the gradual development of the expansion of the affected lung, have been beneficial in preventing and overcoming deformity. When the deformity is far advanced, and especially when the bony support has become fixed, exercises can do little or nothing. They maintain that, given early application of aspiration and remedial exercises, the majority of these men can be spared a permanent deformity of the chest.

THE LATE ROBERT SAUNDBY.

The medical profession in Australia, like the medical profession in Great Britain, has real cause for profound regret at the death of an eminent physician, pathologist and sociologist. As a physician, the benefits arising from Robert Saundby's original work are handed to us at the other side of the world through his many writings. Of his prowess as a pathologist the records of the British Medical Association meetings and the many articles in the *British Medical Journal*, the *Birmingham Medical Review* (of which he was its most able Editor) and other medical periodicals, as well as his contribution to Allbutt's "System of Medicine," must bear witness. During his long association with the affairs of his profession, Robert Saundby recognized that the dignity of our calling demanded a meticulous care in professional behaviour, and that the interests of the profession would not be adequately served by the action of any organization unless the ethical side of our activity were properly developed. By common consent he became the greatest living authority on matters of medical ethics, and his book on this subject, which was revised and re-edited in 1907, stands as the standard throughout the British Empire to-day. It is not too much to say that a practitioner who is guided by the principles enunciated by Saundby in his book will never be placed in an undignified or awkward position, and will always be sure of the respect, both of the public and of his colleagues. He was Chairman of the Council of the British Medical Association from 1896 to 1899, and President in 1911. As a professor of medicine at the University of Birmingham he performed magnificent service to British medicine and to a new medical generation. We would add our tribute to his memory in the name of the medical professior of Australia.

Public Health.

VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending October 20, 1918:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Total Cs.	Dths.
Enteric Fever	1	0	0	0	1	0
Scarlatina	24	0	21	0	45	0
Diphtheria	88	1	36	1	124	2
Pulmonary Tuberculosis	29	7	9	8	38	15
C'bro-Spinal Meningitis	1	—	0	—	1	—

QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending October 19, 1918:—

Diseases.	No. of Cases.
Enteric Fever	4
Scarlatina	3
Diphtheria	24
Pulmonary Tuberculosis	13
Cerebro-Spinal Meningitis	2
Erysipelas	4
Poliomyelitis	1
Anchylostomiasis	2

SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, during the week ending October 12, 1918:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	0	0	1	0	1	0
Scarlatina	1	0	11	0	12	0
Diphtheria	5	2	22	0	27	2
Pulmonary Tuberculosis	1	3	4	2	5	5
Erysipelas	0	0	4	0	4	0
Morbilli	2	0	2	0	4	0
Pertussis	5	0	28	0	33	0
Favus	0	0	1	0	1	0

TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the three weeks ending October 19, 1918:—

Diseases.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Enteric Fever	1	0	1	2
Scarlatina	0	1	0	1
Diphtheria	10	9	13	32
Pulmonary Tuberculosis	6	4	8	18
C'bro-Spinal Meningitis	0	0	1	1

WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the three weeks ending October 12, 1918:—

	Metropolitan. Cases.	Rest of State. Cases.	Totals. Cases.
Enteric Fever	5	0	5
Scarlatina	37	15	52
Diphtheria	25	20	45
Pulmonary Tuberculosis	13	6	19
Erysipelas	2	1	3
Septicæmia	2	0	2
Puerperal Fever	1	0	1
Malaria	2	0	2

NEW ZEALAND.

The following notifications have been received by the Chief Health Officer, Department of Public Health, Hospitals and Charitable Aid, New Zealand, for the four weeks ending October 14, 1918:—

Diseases.	No. of Cases.
Scarlatina	131
Diphtheria	368
Enteric Fever	17
Pulmonary Tuberculosis	87
Poliomyelitis	1
Cerebro-Spinal Meningitis	19
Puerperal Fever	5
Erysipelas	9
Ophthalmia Neonatorum	3

Abstracts from Current Medical Literature.

MEDICINE.

(145) Myalgia.

F. B. Chevasse writes concerning the diagnosis of myalgia in forward areas at the front (*Journ. Royal Army Med. Corps*, June, 1918). Many cases originally diagnosed as myalgia were subsequently excluded, as being neuralgia, sciatica, ostalgia, arthritis, gout, etc. After the exclusion of these conditions there still remained a residue, and a hope was entertained that a sufficient definition of the condition might be obtained to render diagnosis more certain and rapid. Gross malingering was uncommon, but exaggeration of symptoms prevalent. The distribution of the affection was usually symmetrical, and, in the majority of cases, lumbosacral, extending down the lower extremities for a varying distance. The general rule is for the pain to be either lumbar or sacral (not both), with thigh pains super-added in each case. Occasionally pains are present in the lower extremities, but absent in the lumbar and sacral regions. The converse is common in convalescence. One case of "stiff neck" and two cases of pleurodynia occurred in the series. In one case the pain was confined to the upper extremity. No case of pure acute lumbago was seen. Myalgia is a chronic condition, precipitated or exacerbated by cold, damp and fatigue, affecting groups of muscles and characterized by muscular stiffness, becoming greater on resting and less with movement; and by pain, absent during complete rest, and sharp on active contraction and passive hyper-extension. It is to be distinguished from neuralgia by the facts that, in neuralgia, the pain is aggravated when the patient is warm and motionless, and that, in neuralgia, hyperæsthesia of the skin is commonly present. There appears to be no connexion between previous pyrexial attacks and myalgia; but, in the case of neuralgia, there would seem to be a definite relationship. The young are not exempt (one patient was aged 19), but the condition is uncommon under 30, and is increasingly common thereafter. The site of the pain is generally identical in successive attacks, and the onset is usually sudden. Massage is painful, but beneficial.

(146) Vomiting in Infancy.

L. R. De Buys gives an exhaustive classification of vomiting in infancy (*New Orleans Med. and Surg. Journ.*, September, 1918). Children vomit more readily than adults, because their nervous system is more unstable, because of the changes in the growth and development of their digestive tract, and because of their susceptibility to disease. Vomiting may be considered from two points: mechanical and nervous. Mechanical explanation: a deep inspiration, closure of the glottis, contraction of the diaphragm, and, at the same time, opening of the cardiac orifice of the stomach by contraction of the longitudinal muscular fibres, followed by violent expiratory contraction of the abdominal muscles, the glottis remaining closed and the diaphragm contracted. Nervous explanation: impulses are despatched from the vomiting centre in the medulla to the diaphragm by the phrenic nerves, to the stomach and œsophagus by the vagus, and to the abdominal muscles by the intercostal nerves. This centre may be excited by direct action on the stomach mucosa; by reflex stimulation through the peripheral nerves; by direct stimulation of the blood; and by impulses from higher parts of the brain. The writer gives an elaborate classification of the causes of vomiting. As regards vomiting associated with pyloric obstruction, the obstruction may be functional—a pylorospasm, or organic-hypertrophic pyloric stenosis. In the former, by proper dieting, the patient will get well. In the latter the improvement will depend on whether the pylorus is partially or completely closed, upon how much food goes through and to what use the baby puts the food. Both conditions give rise to vomiting, peristaltic waves and constipation. Tumour is found in hypertrophic stenosis. The vomiting is projectile, the food being often thrown two or three feet and over the side of the crib. The quantity may be more than that taken at the meal it follows, some remaining from a previous feeding. After the food taken over-distends the stomach, the air-ball becomes compressed, and in a pneumatic manner causes the food to go in the direction of least resistance, namely, through the cardiac end. Hypertrophic stenosis, if complete, is a surgical condition. The indications for operation will depend on the degree of obstruction, the amount and quality of food which passes through and the use to which it is put and the loss of weight.

(147) Small-Pox.

G. H. Mead gives notes on a recent epidemic of small-pox in the field (*Lancet*, August 17, 1918). Small-pox commenced to show itself amongst the troops in this theatre of war towards the end of October, 1917. The infection was probably conveyed by the Arabs, among whom the disease is more or less endemic. The Arabs were in the habit of frequenting the camps for the purpose of selling their produce. The fact that the disease was early got under control was due to the following measures: vaccination or re-vaccination of the personnel of all troops in the infected area who had not been vaccinated within the past five years; the early recognition of the first cases; the rigid isolation of suspected cases, with isolation of all contacts; the segregation of such troops from which definite cases had been removed; the exclusion of Arabs from the camps. Details are given of illustrative cases, including modified variola and modified abortive variola, discrete variola with initial rash, confluent variola and hæmorrhagic confluent small-pox. As regards differential diagnosis, the eruption can be usually distinguished from varicella by its distribution. In small-pox the eruption tends to be more profuse on the face, back and upper portions of the chest and on the extremities. In small-pox the eruption is usually in the same stage of development in the same part of the body, and does not come out in successive crops. The papules have a hard, shotty feel, and do not develope as quickly as in varicella. In the vesicular stage the small-pox vesicles are circular in shape, loculated, usually umbilicated, deep-seated, with definite inflammatory areolæ around their bases. In chicken-pox the vesicles are often ovoid, with a more rounded apex, are superficial and are never loculated, are seldom umbilicated, and never have the definite areola and infiltrated bases of small-pox. In pustular acne one finds the eruption in all stages of development in the same site. Acne pustules tend to come out in successive crops, and the presence of scars of previous attacks is generally noticeable. Prognosis: The majority of those attacked by confluent variola are said to die. The writer adds that early severe erythema of the face, with œdema, is indicative of a severe confluent type. When the fever increases after the appearance of the pustules it is a bad sign, but sub-normal temperature after the appearance of the pustules is more grave. Eucalyptus oil was used to both drown the objectionable odour of the disease and give a fragrant and soothing atmosphere for the patients' respiratory passages, which are frequently more or less affected.

(148) Cirrhosis of the Liver.

W. J. Mayo states that cirrhosis is a term applied indefinitely and indiscriminately to almost any condition of the liver in which there is an excess of connective tissue. A common characteristic of all liver changes, the result of chronic irritation, without regard to cause, is the deposit of connective tissue (*Medical Review*, August, 1918). Generally speaking, fundamental types of cirrhoses may be distinguished; the others represent combinations or variations. The two types are: portal cirrhosis, in which the irritants are introduced through the portal vein and in which circulatory disturbances are the prominent features, causing gastric hæmorrhages; and ascites. Jaundice is seldom present, and only as a terminal symptom. Biliary cirrhosis, in which jaundice is the chief symptom, ascites being absent, or, if present, being a terminal condition. In both portal and biliary cirrhosis the spleen is often enlarged and has a causative relation in many cases, such as the terminal portal cirrhosis of the splenic anæmias, the so-called Banti's disease. Hanot's cirrhosis appears to have no pathological basis and little clinical evidence to support its existence. The large majority of cases are hæmolytic icterus or ordinary biliary cirrhosis. Hæmolytic icterus, primarily a splenic disease, with

a work hypertrophy of the liver, has been confused with biliary cirrhosis. Typical portal cirrhosis and typical biliary cirrhosis are well defined, but atypical forms exist from mixed causes, as portal cirrhosis, with secondary biliary cirrhosis, from gall-stone infections. It is probable that the relation of stimulants to cirrhosis has been exaggerated. Portal cirrhosis was seen by the writer in a considerable number of non-alcoholic young persons. In Guy's Hospital 14% of those dying from portal cirrhosis had complicating tuberculous peritonitis. Cheadle and others have shown that, while the Laennec type of atrophic cirrhosis stands at one end of the group, representing typical "gin" or "hob-nail" cirrhosis, as many cases are to be found in which the weight of the liver is increased as in which it is diminished, and the belief that such huge livers contract down to the Laennec type is unfounded. In biliary cirrhosis the liver is always enlarged. In 51 cases of splenic anæmia in which the author removed the greatly enlarged spleen the relief to the portal circulation was immediate. In those cases in which cirrhosis was present, ascites disappeared, and several patients have lived for years in excellent health.

NEUROLOGY.

(149) Instinct Distortion.

Donald E. Core (*Lancet*, August 10, 1918), in dealing with the conditions usually spoken of as war neuroses, points out that functional nervous disorders can be divided into two groups, according to whether they are or are not determined by environment. He finds that in hysteria the rôle of environment is indirect, while in true war neuroses it is direct. The hysterical phenomena are based on a physiological reaction, while the phenomena associated with war neurosis are pathological and subserve no useful function in the shielding of the conscious mind from unpleasantness. In analysing war neuroses, he argues that the condition arises as a result of a deliberate inhibition of the primary instincts. He finds that, under the emotion of fear, there is a normal instinct to run away; under the emotion of anger there is a normal instinct to fight; under the emotion of disgust there is a normal instinct of repulsion; under the emotion of wonder there is a normal instinct of curiosity; under the emotion of subjection there is a normal instinct of self-abasement; under the emotion of elation there is a normal instinct of self-assertion and under the emotion of tenderness there is the parental instinct. In modern warfare the emotions of fear and disgust are called into frequent and violent activity. The instincts which these emotions usually give rise to are expressly forbidden. Men are frequently put into positions of imminent danger, and, if they are normally constituted, experience fear. Under ideal conditions of such a position they would run away, but self-respect and military discipline incite them to fight, in direct disobedience to their instinct. The same applies to the emotion of disgust. On the other hand, anger is rarely felt by the combatant. Arguing along these lines, he finds that the manifestations of fright associated with flight and those associated with crouching are frequently met with in war neuroses. They include pallor, with rapid pulse-rate, and, at times, exophthalmos, muscular excitability, spasm of tremor and dilation of the pupil, tachycardia, sweating, inability to move and inability to make a noise. He holds that these somatic signs are indicative of a "choked up" conative aspect at the time of their occurrence. In support of the view that muscular spasm, certain paralyses, aphonia or stammering are instinct distortions connected with the element of fear, he points out that the patient looks terrified, is terrified and experiences fear in his dreams. The author finds that the exploding shell and the falling trench are ætiological factors in the production of a neurosis, but that they are as the "last straw on the camel's back," completing the degree of fear that is necessary to make the symptoms obtrusive. After discussing several aspects of the question, he arrives at the conclusion that war neurosis is clinically the result of an improper suppression of a tendency that is inherent in everyone, and that is determined by the position of mankind in the scale of evolution. It is manifested as a result of an emotional activity, which is normal as far as the emotion is concerned. It is thus fundamentally different from the condition of hysteria. He objects to the word "shell shock," and suggests that, when a shell explodes so close to a man that the violent alterations in the air pressure bring about disruptive effects, the condition should be called shell disease, while, when there is no organic basis to the condition, it should be called instinct distortion or dysthymia.

(150) Children Who Need Special Care.

Yerkes (*Mental Hygiene*, April, 1917) regarding the first ten years of life as of most importance for purposes of examination, asserts that during this period children should be classified as follows: (1) the intellectually superior, or super-normal, (2) the intellectually inferior, or sub-normal, (3) the intellectually dependent, (4) the affectively or instinctively defective, and (5) the mentally normal, typical or average. Humanitarian work with the feeble-minded is highly important, but it is even more important that careful attention be given to the intellectually superior. This is his plan for picking out the children to be helped and treated. A staff of well-trained experts, including a physician, a psychologist, an educator, and a social worker, should be organized. These should study the entire school population of some city, county, or State, by means of the best methods of physical and mental measurement available. The children should be examined in groups of twenty to fifty for the more gross defects, then those needing a more detailed examination (usually 10% to 15%) should be re-examined. A detailed report, with suggestions or definite recommendations concerning proper, desirable, or urgent educational, medical or vocational treatment should finally be given.

(151) The Nervous Symptoms of Polycythæmia Vera.

Christian (*Amer. Journ. Med. Sciences*, October, 1917), in eight out of ten cases of *Polycythæmia vera*, observed definite nervous disturbances, and, in most cases, these were the chief cause of the patient's discomfort. Such symptoms varied in duration from a few days to many years. Headache and dizziness were most frequent. Other common symptoms were visual disturbances, such as easily-induced fatigue of the eyes, blurring of vision, scintillating scotomata, transient blindness and diplopia. Sensory disturbances, especially paræsthesia, arose. In several instances paresis and paralysis were seen. In some cases the nervous symptoms were so focal as to lead to the diagnosis of brain tumour. Christian concludes that nervous symptoms are usually those which lead the patient to seek medical advice. And since, quite often, polycythæmic patients fail to exhibit cyanosis or erythema, cerebral lesions are suspected. In the earlier stages of the disease the nervous symptoms must result from simple circulatory disturbances; in the later stages, cerebral softening, or hæmorrhage, or thrombosis, is responsible.

(152) Madness and Unsoundness of Mind.

Mercier (*Journ. Mental Science*, October, 1917) submits that madness and unsoundness of mind are not the same thing. Madness includes more than unsoundness of mind, and unsoundness of mind very often arises in the sane. It is not proved, and it is not provable, but it may be that in every case of madness there is disorder or disease of the mind, or unsoundness of mind; but madness is certainly not the same thing as disorder, or disease, or unsoundness of mind, for if it were we could never observe it, since certainly we cannot observe what is going on in the minds of other people. On the other hand, it is provable, and it is proved, that in every case of madness there is disorder of conduct. When we certify a person as mad we have not observed disorder of brain or disorder of mind; what we have observed is something the patient has said, or something the patient has done; and what the patient says or does is not part of his brain or part of his mind, it is part of his conduct. If there is no disorder, or failure, or defect, or fault in anything he says or does, it does not matter in the slightest what the state of his brain is, or what the state of his mind is—we cannot, for example, see or hear the delusion in another person's mind; all we can see or hear is the expression of it in speech or gesture, or some other mode of conduct.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch of the British Medical Association was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on October 25, 1918, Dr. A. A. Palmer, the President, in the chair. Professor Leslie Wilkinson, the President and members of the New South Wales Institute of Architects and other prominent Sydney architects had been invited to attend and take part in the discussion.

Dr. Richard Arthur, M.L.A., read a paper on "The Hospital of the Future in Australia" (see page 363).

Mr. Sydney Jones stated that the President of the New South Wales Institute of Architects had unfortunately been prevented from availing himself of the invitation of the Council. He, the speaker, as Acting-Secretary of the Institute, wished to express their indebtedness to the Council of the New South Wales Branch of the British Medical Association and to say that his Institute hoped at some future date to return the compliment.

He thought that the majority of those present would be of one mind concerning the value of open-air treatment. Sooner or later the design of a hospital ward would be on lines similar to those described by Dr. Arthur. The advantages of such a ward were the access of sunlight and the presence of free aeration. It was possible to bring the blocks closer together without limiting the amount of air at the disposal of each patient, and, consequently, with this design, a larger number of wards could be erected on a given area. The disadvantages, he admitted, were formidable. In the first place, there was the problem of dust, the great enemy of mankind. He held that the difficulty of overcoming dust was a problem in itself. He had seen the dust an inch and a half deep in the wash-hand basins at the Sanatorium at Wentworth Falls. The second difficulty was the exposure to inclement weather, if the ward were a stationary one. He pointed out that it was not an impossible problem for the architect to plan ward blocks which could be made to revolve. The superstructure would have to be lightly built.

In the next place, Mr. Sydney Jones gave an account of the scheme of building at the Bodington Sanatorium, and illustrated his remarks with block plans. There were five blocks containing 16 beds each, consisting of two wing wards, with eight beds in each. In the centre there was a day-room or lounge space; behind were the corridors, and at each end were the bath-room, lavatories and entrances. The face of the wards was provided with pivot-hung windows above, then a space of three feet, which could be protected by Venetian blinds, to meet a low partition or wall resting on the ground. The cost of construction of each of these ward blocks came to £68.7 per bed, while the cost per bed of the whole sanatorium, including the administration block, came to £270 per bed. The material used was wood, while the roof was covered with ruberoid. The Queen Victoria Sanatorium had cost £260 per bed. He referred to the fact that the Frimley Sanatorium had cost £1,000 per bed. Before resuming his seat, he gave a brief account of the Eastern General Hospital at Cambridge, one of the earliest of the emergency military hospitals. The wards in this institution were of the verandah type. It was stated that this hospital contained 6,000 patients, and that the mortality was 4.6‰. In a series of 60 cases of pneumonia the recovery-rate was 95%.

Dr. R. Gordon Craig prefaced his remarks by stating that it was essential that the relations between the architects and the medical profession should be clearly defined. Medical men must speak clearly what their requirements were, in order that the architects might give practical effect to their needs. Dr. Arthur had asked the medical men to state which cases were suitable for open-air treatment. He would prefer to define which were unsuitable. He thought that all patients subjected to major operations should not be treated in the open air. In the post-operative treatment it was necessary to expose large surfaces of the body. In his opinion, especially the patients with acute conditions requiring operation should be placed in enclosed wards. The same would apply to acute medical cases and to persons convalescent from acute conditions. He suggested establishing the thesis that when a patient had to be fed in bed in a recumbent position they should be kept indoors. He pointed out that the quick distribution of food from the kitchens was difficult to arrange, save in a properly organized solid structure, provided with lifts and wing wards. He thought the pavilion system the best type for hospitals for acute cases. In regard to the future of hospitals, he held that, while patients convalescing from acute illnesses and those suffering from chronic illnesses might be placed away from the cities, the hospital for acute cases and those used for teaching purposes should be centrally situated. He regarded the city hospital as a sort of casualty clearing station. The visiting staff at an outside hospital would be inadequate for both these purposes. In his opinion, from £600 to £1,000 per bed was a preposterous waste of public funds. He had seen the open-air ward of the Brisbane Hospital, and recognized that it was suitable for a sub-tropical climate. The form of house architecture gave a clue to the architecture required for hospitals. Open-air houses were not built in Sydney, and the long, open verandah, exposed on three sides, was being discarded, because people found that the howling north-east wind blew a man out of his chair or bed. Verandahs were now built with protection on three sides. He recognized that for tuberculosis, typhoid fever and pneumonia the open-air hospital was most admirable, but even in them the patient must be protected against howling winds. In Paris people took their meals outside the cafés. This was impossible in Sydney, on account of the wind. It was unwise to compare what was being done for military patients with what should be done for civil patients. The military patient was a picked man, at the prime of life, with unimpaired muscular and vital forces. His recuperative powers were at their maximum. He could be treated in a way that would be actually dangerous to the aged or infirm patient in civil life.

Mr. J. Sulman stated that he was interested in hospital construction, and placed before the meeting the details of the construction of an American war hospital in France. He illustrated his remarks by means of lantern slides. The points about these hospitals were their cheapness, and the fact that the parts were standardized, five-foot sections being used. In the back wall of each unit a window was let into every fourth section. The two intervening sections were capable of being let down. In discussing the advantages of the light or temporary construction, as compared with solid or permanent buildings, he pointed out that there was obviously a need for economy, and it would be quite useful to consider how far cheap construction could be used. They had to think of the revolutionary changes which had occurred during the past 33 years in the treatment of consumption. He could not help thinking that Dr. Gordon Craig, in his advocacy of the city hospitals, had not taken into account the changes which the next few years might reveal in connexion with transit. It was quite possible that, within a short time, patients could be conveyed by aeroplane in a quarter of an hour or twenty minutes to the Blue Mountains. Temporary hospitals could be constructed in Europe at from £50 to £70 per bed, and, in one instance, he believed the cost had worked out at £20 per bed. In Australia, where the cost of labour was higher, he assumed that £100 per bed would be the lowest limit.

Mr. J. F. Hennessy thought that the cost of erection of the administrative block of a metropolitan hospital represented a very large proportion of the total price. He spoke of the hospital in connexion with the Henry Phipps Institute for Tuberculosis in Philadelphia. This hospital contained fifty beds, and was built in five storeys. The two lower storeys were devoted to the administrative offices and the quarters for nurses and other employees. The third, fourth and fifth storeys contained open wards for the patients. It was more economical to build upwards than to spread out laterally. The cost of the Phipps Hospital was £240 per bed.

Professor Leslie Wilkinson was sanguine enough to hope that the question of hospital construction could be definitely settled, and the necessity of constant alteration would disappear. The Sydney climate placed a limitation on the variations in type of building. Referring to the recently built military hospitals, he pointed out that these were largely emergency hospitals, but, under certain conditions, they might be adapted to civil uses. The American hospital which had been displayed by Mr. Hennessy, was very interesting, particularly because of the standardization of the parts. He

noted that the ridges and eaves were made alike. This represented a considerable saving in putting the buildings up.

Mr. H. C. Kent spoke of his experience in Europe 13 years before. He had visited many of the sanatoria then in existence, and had discussed the question of sanatorium construction with Dr. Latham, the winner of the prize essay on which the King Edward Sanatorium at Midhurst had been built. The sanatoria at Northwood, at Frimley and at Midhurst each contained about a hundred beds, and the cost of each was approximately £100,000. Dr. Latham had suggested that, for Australian conditions, tent wards would suffice. In reply to this, he had pointed out that the administrative block, the kitchens, the laundries, the sanitary arrangements and the nurses' quarters would have to be of solid structure. He had also pointed out that the Queen Victoria Sanatorium contained all these parts in permanent buildings, and that the cost had been very materially less than £1,000 per bed. The history of the Brompton Hospital for Consumption exemplified the vast change which had occurred in the treatment of this disease. This hospital had been constructed 70 years before, and additions and alterations had been effected 40 years before. The hospital, as it was at present, was hopelessly out of date. It had been suggested that the best method of dealing with this hospital would be to burn it down. He was convinced that as long as medical science progressed the problem of hospital construction could never be solved. He therefore favoured economy. Sir Robert Philip, of Edinburgh, in his comprehensive plan of dealing with tuberculosis, had introduced a reaction. They had to be careful not to sacrifice too much, and to see that their buildings were sufficiently substantial. He referred to the revolving shelters or pavilions, containing four beds, which had proved to be very serviceable. At Casino there was an out-door pavilion of an excellent type. The back was provided with windows, and the three sides had chain-hung Venetian blinds. The whole structure could be moved, to a limited extent, on a central pivot.

Dr. M. A. McIntyre Sinclair referred to the moderate cost and excellent building of the Bodington Sanatorium. They had there a solid building, constructed at the cost of £300 per bed, which compared favourably with the Frimley Sanatorium, costing £1,000 per bed. The chief difficulty was that offered by the meteorological conditions. The wind was especially harmful. Rain and alterations of temperature scarcely mattered. It was necessary to arrange that the back of the building was properly closed in against the bad weather side. The verandahs had protection from three sides, which made it possible to give open-air treatment with comfort. He was of opinion that the open-air verandah would come into increasingly general use. He suggested that patients with acute nephritis and lowered resistance were not suited to open-air treatment. He was not prepared to condemn the general metropolitan hospitals as extravagant. He spoke of hospitals containing from 500 to 1,000 beds. The increased cost of repairing, painting and insuring against fire of a temporary wooden structure and the additional cost of nursing and domestic service more than counteracted the saving in structure. If the amount spent on wages and work necessitated by the cheaper building were capitalized and added to the cost of construction, it would be found that the cheapest building of £100 per bed would cost more than a substantial building of £300 per bed. He admitted that, for infectious diseases, for military patients and for other temporary emergencies, it was well to build cheap hospitals, but where permanency was required, he opposed the idea. On the other hand, he pointed out that the open-air, verandah type could be combined with the substantial type.

Dr. A. E. Mills thought that the joint meeting of medical men and architects was very valuable. He wanted to know what was meant by open-air treatment. In his opinion, it really meant having a very well ventilated ward. He had been sitting between two eminent architects, and had asked each of them whether it would be possible to provide a practically unlimited amount of air by through ventilation in the ward of an ordinary hospital. The one had replied that it was quite impracticable, while the other had stated that it could be easily done. Dr. George E. Rennie had been the first to adopt the open-air treatment of pneumonia. He had placed his patients on a verandah, and had been much impressed by the apparent benefit of this treatment. He had collected the statistics and had published them in *The Medical Journal of Australia*. Dr. Mills held that it would have been more favourable to the patients had they been treated inside. In the next place, he referred to the evidence Dr. Arthur had adduced in support of his contention that the patients benefited by out-door treatment. Dr. Arthur had stated that the nurses had said that the patients did better, and that the patients said they felt better. He did not consider that the impressions of nurses or the wishes of the patients were sufficient evidence to justify Dr. Arthur in reconstructing the hospitals. He preferred to have his patients in the well ventilated wards of hospitals, like the Royal Prince Alfred. He held that these wards gave the patients the most excellent chances of recovery. The cost of construction quoted was out of all reason, but there was no wisdom in going to the other extreme. He agreed with Mr. Sydney Jones, who had designated dust as the enemy of mankind. If the open air was so very good for patients, it should be equally good for healthy people, and yet the houses of Sydney were not built with open sides. He thought it was necessary to beware of moving to extremes. He did not think it was necessary to put any patient into the open air.

Dr. Ralph Worrall regretted that Dr. Sinclair had not been a member on the committee that had dealt with the determination of the kind of infectious diseases hospital to be erected at Lidcombe. In regard to the question of blinds, he held most strongly that Venetian blinds were dust traps, and should be avoided at all costs. Shutter blinds should always be used. He was in agreement with Dr. Gordon Craig and with Dr. Mills. The former, with his usual kindness, had expressed himself rather too mildly. Dr. Worrall regarded the proposal to move the hospitals out of the city into the country as an insane one. It was cruel to the patients and cruel to the patients' friends. It revealed a want of acquaintance with the psychology of disease, and he maintained that, unless the patient's mind was studied as well as his body, the prospects of cure were lessened. In addition, there was the necessity of constant supervision, and the question of the teaching in hospitals had to be considered. All these factors were powerful reasons for keeping a hospital in the city. He thought that the only reason that had been put forward in favour of moving the hospitals out of the city was the political or departmental one. Dr. Arthur's scheme had one argument in its favour. This was cheapness. At the Eastern Military Hospital, Cambridge, the exposure led to considerable suffering and discomfort of the patients. He held that it was absolutely essential to heat wards. In conclusion, Dr. Worrall stated that, under ideal conditions, provision should be made for the patients' beds to be wheeled on to the verandah when this was desired.

Dr. W. F. Litchfield expressed his indebtedness to Dr. Arthur and to the various architects who had spoken. He referred to the changes which had been effected at the Children's Hospital. Formerly the pavilions had been provided with verandahs facing north-west. The verandah was narrow and of little use. More recently wide verandahs, facing east and west and closed at either end, had been built. It was quite a common experience to go into a medical ward and to find that the 27 beds had been moved on to the balcony. The western balcony was only used on rare occasions, but the eastern balcony was always in great demand. Some of the patients were left out all night. The patients liked it, the nurses approved of it and the doctors sanctioned it. Moreover, the patients did well. In his experience, nearly every medical case could be treated in this way. There were two diseases which he preferred to treat inside. The first was acute rheumatism. Patients suffering from this disease did not do well. The other was acute nephritis. Open-air treatment, used with discretion, was, in his opinion, advantageous in all other conditions. He thought that the wind factor had been a little overdone in the discussion. He instanced a case of broncho-pneumonia in a child who had been treated in the ward in a steam-tent. The patient was doing badly. It was then transferred to the balcony, and immediately began to improve. He had no reason to suppose that other acute infections did not lend themselves to this form of treatment. He did not approve of concrete floors. They were cold and hard and uncomfortable for the nurses, doctors and patients. The only fault he had to find with the verandahs at the Children's Hospital was that in summer they became very hot. He considered that attention

should be given to the construction of the roof and to the better protection against the westerly winds.

Mr. Burcham Clamp was interested to find that architects differed in their opinions as much as doctors did. He considered that fresh air was possible in well ventilated wards. The great difficulty associated with the adoption of open-air wards was to be sought in making provision to meet the very varied climatic conditions of Australia. Quite recently the temperature has fallen in Sydney within a few hours from 33° to 5° C. (91.4° to 41° F.). Previous speakers had referred to open-air houses. Fresh air was often difficult to secure in cottage dwellings, because women feared to leave the windows open at night on account of the fear of burglars. The two-storey house was preferable in this respect, as the windows of the upper storey were kept open. He asked those present whether they had noticed that there were no flies on the roof restaurant at Farmers'. It has been found that flies did not rise very high above the earth's surface. At 80 feet they were absent. He regarded hut hospitals as a temporary expedient. They appeared to be suitable for consumptives, but it was out of the question to build a private hospital in this way. A suggestion had been made that the cheap huts at the Liverpool Camp should be used as dwelling-houses for returned soldiers. The heat of these huts and the risk of fire rendered them quite unfit for such a purpose. He considered cement floors an abomination.

Dr. John Morton put forward the thesis that open-air treatment had been founded on a misconception. The beneficial effect on a tuberculous subject was not a question of fresh air, but was a matter of sunlight. He called attention to the fact that in Australia lupus was a very rare condition. In England and on the continent of Europe lupus was extremely common. Lupus was successfully treated by Finsen light. He explained this as a phenomenon of sunlight. In England bright sunlight was infrequent and lupus was common. In Australia the sunlight was intense and lupus practically did not occur. He held that sunlight formed an important part of the treatment of tuberculosis. The recognition of this should have a marked influence on the construction of hospital wards. He did not regard the material used in the building of the ward of great importance, as long as the ward could be kept cool. The wards in the Royal Prince Alfred Hospital were almost ideal. In conclusion, he stated that he had solved the blind question. In his own house the blinds on the verandahs were pulled up from below, and were not pulled down from above. He felt that the verandah was burglar proof, since no one could climb over a blind constructed in this way without awakening a person sleeping there. Moreover, it formed an ample protection against winds.

Dr. A. A. Palmer, the President, thanked the visiting architects for having responded to their invitation and for having taken part in the discussion. He was a firm believer in these combined meetings. On a previous occasion they had had members of the Dental Council of New South Wales and of the Electrical Association of Australia, and the interchange of views had been most beneficial.

In his reply, Dr. Arthur said that the voice of conservatism had been abroad that night. He was not dismayed by the opposition to his ideas. He recalled the opposition that had been raised to the open-air treatment of tuberculosis, and found comfort. If well ventilated wards were as good as the open verandah, why were tubercular patients not treated in these wards? He did not attach much importance to the sunlight theory. The treatment of tuberculosis in sanatoria was successful in England, where the amount of sunlight was limited. He asked Dr. Gordon Craig how often he dressed his operation wounds. Dr. Craig had feared to expose large surfaces of the body to the open air. If the surgical wounds of the present day healed by second intention, in the presence of laudable pus, there might be some force in this argument. Dr. Mills had taken exception to the opinions of nurses. He had learned to respect the powers of observation of well-trained nurses, and he certainly listened to an expert sister in connexion with the progress of a patient. The patients liked to be outside, as it was much more cheerful. He was prepared to regard the mental attitude of the patient as important. The open-air ward in Brisbane was said to be satisfactory, but only because it was in a sub-tropical climate. He did not care how cold the air was. Of much more importance was the difficulty of a hot ward. No ward inside a building had yet been supplied with more than 2,000 cubic feet of air space per patient. Notwithstanding all that had been said about the vicious properties of wind, he held that the "north-easter" was an excellent soporific. He invited his critics to visit Manly at night-time, to see the people sleeping on their verandahs and enjoying the cooling effect of the north-easterly breezes.

James Samuel Frederick Barnet, M.B., Ch.M., 1918 (Univ. Sydney), of "St. Vigeans," Eltham Avenue, Darling Point, Sydney, has been nominated for election as a member of the New South Wales Branch.

On October 23, 1918, the Premier stated in the Legislative Assembly of the Victorian Parliament, in reply to a question by Mr. Lemmon, that the representative of the British Medical Association had advised him that his Association was willing to instruct counsel with a view to the settlement of the dispute between the friendly societies and their late medical officers on August 16, 1918. He had not received any report from counsel, but had reason to believe that the report would be presented before the end of the week. We understand that the report has been presented.

The amount collected on "Hospital Sunday," which apparently includes Friday and Saturday, in Victoria promises to be still larger this year than in previous years. On October 28 the money in hand was £16,403, as compared with £13,614, which represents the amount acknowledged on Monday following the collection in 1917.

Special Correspondence.

(By Our Special Correspondent.)

CANADA LETTER.

Medical Week in Canada.

This year, contrary to the usual custom, a number of the more important medical societies of Canada joined their forces and took part in a Medical Conference, which was held at Hamilton from May 27, 1918, to June 1, 1918, inclusive. The city of Hamilton lies about forty miles from Toronto, in the province of Ontario, on the shores of Lake Ontario. The beauty of its situation is enhanced by the Hamilton Mountain, which rises to about 300 feet, from which one looks across the lake on the one hand and to the fertile Niagara fruit belt on the other. The societies which took place in the Congress were the Canadian Medical and the Ontario Medical Associations, the Canadian Association for the Prevention of Tuberculosis, the Canadian Public Health Association, and the Ontario Health Officers' Association. The opening ceremony was performed by the Duke of Devonshire, the Governor-General of Canada.

The first two days of the conference were devoted to meetings of the Canadian Public Health and the Ontario Health Officers' Associations. The first paper was read by Lieutenant-Colonel John W. S. McCullough, Chief Health Officer for Ontario, the subject being the effort made by the Ontario Government to suppress venereal disease through the *Venereal Diseases Act* recently passed and put into effect on July 1. The provisions of this Act have already been stated in *The Medical Journal of Australia* (my letter of April 3, 1918). In the discussion which followed this address, it was pointed out that the success of the measures proposed would depend largely upon the facilities provided by the eighty-eight hospitals in the province which would treat such cases, the necessity for free treatment being insisted upon; that a negative Wassermann test is no proof that infection is not present in the primary stage of syphilis, and that one of the greatest difficulties in the suppression of such disease was the control of illicit intercourse, particularly in the case of young women who worked during the day. Another subject that attracted considerable attention was the question of disinfection, especially after scarlet fever. Captain W. H. Hill, director of the Institute of Public Health, London, Ontario, stated that, in his opinion,

formaldehyde and permanganate of potassium were of no avail after this disease, and that, as long as there was any discharge from the ear, or herpes, he considered infection still transmissable. Other speakers were in favour of the use of these disinfectants. Finally, a commission was appointed to investigate into and report on the employment of quarantine and terminal disinfection. A number of good papers on child welfare was also read and provoked interesting discussion.

On May 29 the eighteenth annual meeting of the Canadian Association for the Prevention of Tuberculosis was held. It was pointed out by the Secretary of the Association that the records of those rejected on account of tuberculosis could be obtained from the army and the cases followed up in the same way as was being done in the United States. He emphasized the necessity of keeping up the food production, in order to maintain the vitality of the population.

In the evening of May 29 a combined general session of all associations was held. The presidential address of the Ontario Medical Association was distributed to members instead of being read. In it Dr. John P. Morton, of Hamilton, made reference to the splendid spirit of co-operation that existed, both during the preparation for the Congress and during the meetings. The present occasion was a departure which had resulted in a highly scientific programme, and he hoped it would commend itself to the profession and be repeated from time to time.

A symposium was then held on the returned soldier problem. Of particular interest was a paper read by Lieutenant-Colonel Colin K. Russel, of Montreal, on "Psychogenetic Conditions in Soldiers, Their Ætiology and Treatment." Colonel Russel showed that such conditions were the result of conflict between the natural inherent instincts and the more lately acquired control of these instincts by the higher self. These conditions occurred in epidemic form and as a result of deficient control of congenital origin—as in mental deficiency—because of lack of training, or as a result of exhaustion of the acquired higher control under prolonged strain. The defeat of the higher control and abolition of the critical activities rendered the patient open to suggestions that met the wishes of the conquering instinct. Trench backache was the first of these conditions to appear in epidemic form. Treatment should consist in repressing the usurping instinct and stimulating the higher control. Dr. Thaddeus Hoyt Ames, discussing the subject of shell shock, stated that, though effective, discipline was not sufficient to prevent shell shock. A great deal could be done by the officers by proper treatment and care of the men. The confidence of the soldiers should be gained, and they should be taught the cause and origin of neurosis and that fear is a healthy normal reaction in the presence of danger.

On May 30 and 31 the thirty-eighth annual meeting of the Ontario Medical Association, in conjunction with the Canadian Medical Association, was held. The Address in Medicine was delivered by Dr. Lewellys F. Barker, of Johns Hopkins University, Baltimore, who took as his subject "The Significance of Heart Murmurs That May be Found on Examination of Candidates for Military Service," showing that, on the whole, while the study of cardiac murmurs is of great importance, the condition of the cardiac muscle and the estimation of its ability to bear strain is of greater significance. The Address in Surgery was given by Charles H. Mayo, of Rochester, N.Y., who treated of cancer and its treatment, and stated that 80,000 people die of that disease in the United States each year. Dr. Joseph De Lee, of Chicago, delivered the Address in Obstetrics, discussing the methods and operations for reducing fœtal mortality, making special reference to the newer methods of Cæsarean section. "Asthma in Infancy and Childhood" was the subject of the Address in Pædiatrics, delivered by Dr. Isaac Abt, of Chicago. Dr. W. G. MacCallum, of Johns Hopkins University, contributed a paper on the "Pneumonia of Army Camps." Dr. MacCallum pointed out that the great majority of cases were of a broncho-pneumonia, which was due to infection by a hæmolytic streptococcus. He described the condition as an interstitial broncho-pneumonia, on account of the rapid infiltration of the tissues. The disease was extremely virulent in type, and transmitted by direct contact, by the mouth spray, and so on. It was especially liable to follow measles and scarlet fever. As yet no effective means of treatment had been found, but the hope of the future probably lay in vaccine therapy. A number of other papers were contributed, among them one on "Surgery of the Colon," by Dr. McGuire, of Buffalo, who described resection as the ideal procedure, stating that ileo-sigmoidostomy, as an operation of choice should be discarded.

The Conference ended on June 1 with a combined medical and surgical clinic, under the auspices of the Hamilton Medical Society. This was held in the magnificent new hospital which has recently been erected on Mount Hamilton.

Among the attractive features of the Conference were the motion pictures which were shown daily, the apparatus for the orthopædic treatment and training of returned soldiers, designed and manufactured at Hart House, Toronto University, and the museum collection and clinical laboratory contributed by the Universities of Toronto, Queen's, McGill and Western, and the Canadian Army Medical Corps. Among the exhibits were some 35 specimens showing different types of war wounds; these were collected in France, and were the first specimens to reach Canada. They form the nucleus of a Canadian War Museum, which is to be established on the lines of the one in England.

Correspondence.

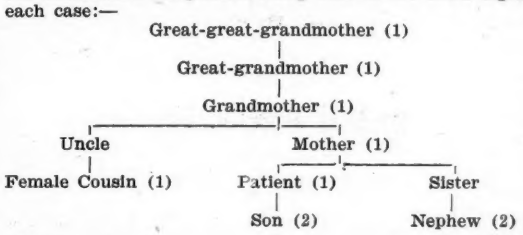
SUPERNUMERARY DIGITS.

Sir,—By courtesy of Dr. H. C. E. Donovan, I am enabled to report a series of family occurrences of supernumerary digits.

A patient in this hospital, a young woman, aged 20, recently gave birth to a male child with an extra digit attached to the middle part of the little finger of each hand. On interrogation she told me that one of her three sisters also has a boy showing the same phenomenon. She knows of no other male relatives so distinguished.

But her mother, a girl cousin (daughter of a maternal uncle), her grandmother, her great-grandmother, and her great-great-grandmother are said by this patient to have each been born with a supernumerary digit. These cases differ from the two boys first mentioned, in each having one extra digit, while the males have one attached to each little finger. Our patient herself shows the stump of an extra digit on the little finger of the left hand.

This table then shows the line of descent, the number after the individual's designation being that of the extra digits in each case:—



I have not had the time to do anything towards the verification of the patient's statements, but know of no reason to doubt them.

Yours, etc.,

R. C. EDWARDS.

Women's Hospital, Crown Street, Sydney.
(Undated.)

PHYSIOLOGY OF THE STOMACH.

Sir,—In connexion with Dr. Mills' very instructive paper, recently published in this journal, I should like to call attention to a very interesting experiment performed by Pawlow. A dog in whom an artificial duodenal fistula had been made, was allowed to become thirsty. He was then given food. After the meal was finished he was given a drink of water. The water passed through the stomach and out of the pylorus, whilst the food was left in the stomach. Probably it was passed along the lesser curvature, whilst the food was held in the fundus. All of this goes to show that the alimentary tract is not just a drain-pipe with a bag at the upper end of it, but a physiological unit of exceedingly great functional complexity, as Dr. Mills very rightly implies throughout his paper.

When we understand a lot more about this complex me-

chanism, patients will be saved quite a great many useless operations.

With regard to neurasthenic dyspepsia, Dr. Mills mentions bromides and belladonna. I have found rest in bed much more valuable than either. I feel sure that Dr. Mills has done the same.

Yours, etc.,

ARTHUR S. VALLACK.

233 Macquarie Street, Sydney,
October 23, 1918.

Books Received.

AIDS TO MEDICAL DIAGNOSIS, by Richard Whiting, M.D.; Second Edition; 1918. London: Baillière, Tindall & Cox; Foolscap 8vo., pp. 167, illustrated. Price, 3s. net.

WAR NEUROSES, by John T. MacCurdy, M.D., with a Preface by W. H. R. Rivers, M.D.; 1918. Cambridge: The University Press; Demy 8vo., pp. 132.

THE CHEMISTRY OF SYNTHETIC DRUGS, by Percy May, D.Sc., F.I.C.; Second Edition, revised and enlarged; 1918. London, New York, Bombay, etc.: Longmans, Green & Co.; Demy 8vo., pp. 250. Price, 10s. 6d. net.

MILITARY SURGERY OF THE ZONE OF THE ADVANCE, by George D. E. Tarnowsky, M.D., F.A.C.S.; 1918. Philadelphia and New York: Lea & Febiger; pp. 330, illustrated. Price, $1.50.

THE PROBLEM OF MAN'S ANCESTRY, by Frederic Wood-Jones; 1918. London: Society for Promoting Christian Knowledge; Sydney: Angus & Robertson, Ltd.; Pocket Size, pp. 48. Price, 10s. net

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xv.

In future, no advertisements inviting applications from medical practitioners for positions in public institutions will be accepted unless the appointment is limited to medical practitioners who are ineligible for military service, or who have returned from military service. The term "ineligible for military service" is used to signify practitioners who are above military age, those who have offered their services and have not been accepted by the military authorities, or those who, for valid reasons, are incapable of applying for a commission in the Australian Army Medical Corps.

Department of Defence, Medical Practitioners for Military Hospitals.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other contract practice. Australian Prudential Association Proprietary, Limited. National Provident Association. Mutual National Provident Club.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Rockhampton Associated Friendly Societies. Cloncurry Hospital.
SOUTH AUSTRALIA. (Hon. Sec., 8 North Terrace, Adelaide.)	Contract Practice Appointments in South Australia. Contract Practice, Appointments at Renmark.
WESTERN AUSTRALIA. (Hon. Sec., Health Department, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Parramatta, Auburn and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, N.Z.

Diary for the Month.

Nov. 4 to 13.—Vic. Branch, B.M.A., Nominations Received for Council.
Nov. 8.—S. Aust. Branch, B.M.A., Council.
Nov. 8.—N.S.W. Branch, B.M.A., Clinical.
Nov. 12.—Tas. Branch, B.M.A., Council and Branch.
Nov. 12.—N.S.W. Branch, Ethics Committee.
Nov. 13.—Vic. Branch, B.M.A.
Nov. 13.—North-Eastern Med. Assoc. (N.S.W.).
Nov. 14.—Vic. Branch, B.M.A., Council.
Nov. 19.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Nov. 20.—W. Aust. Branch, B.M.A.
Nov. 22.—Q. Branch, B.M.A., Council.
Nov. 26.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Nov. 26.—Vic. Branch, B.M.A., Ballot Paper for Election of Office-bearers issued.
Nov. 27.—Vic. Branch, B.M.A., Council.
Nov. 28.—S. Aust. Branch, B.M.A.
Nov. 29.—N.S.W. Branch, B.M.A.
Dec. 3.—N.S.W. Branch, B.M.A., Ethics Committee.

EDITORIAL NOTICES.

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